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A
SERIOUS ADDRESS
On the dangerous Consequences of neglecting
COMMON COUGHS AND COLDS;
WITH
SUCCESSFUL DIRECTIONS
How to Prevent and Cure
CONSUMPTIONS.

THE THIRD EDITION.

To which are now added,
OBSERVATIONS
ON THE
HOOPING COUGH AND ASTHMA.

By THOMAS HAYES.
Member of the Corporation of Surgeons, London, &c.

*“The slightest Catarrhal Defluxion, or Cough, ought not to be
“neglected, if it does not go off in a few Days.”*

Dr. FOTHERGILL.

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SEVERAL

COMMON COUGHS AND COLDS

WITH
SUGGESTED DIRECTIONS

How to Prevent the Same

CONSUMPTION

THE THIRD EDITION

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OBSESSIVE AFFECTIONS

OF THE

HOOPING COUGH AND ASTHMA

BY THOMAS HAYES

Member of the Corporation of Surgeons, London, &c.

"The English Chamberlain Physician to George, King of the
"Netherlands, &c. is a most good and a true Doctor."

Dr. Ferriaroli.

LONDON:

Printed by J. Murray, No. 2, Fleet Street.

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MDCCCXXXI.

[The Two Editions are Separate.]

TO

Sir Richard Jebb, Bart. M.D. F.R.S. & S. A.

A N D

PHYSICIAN EXTRAORDINARY to His MAJESTY, &c.

S I R,

THE honour which you did me, by permitting me to DEDICATE the former EDITION of this Work to you, and the success which it has met with, emboldens me to entreat the same favour for this. I have made some corrections and additions which I hope will also meet with your approbation,

There is no one to whom I can with so much propriety address this little work as to you, because no person can be a better judge than yourself of the necessity for early care, to prevent the complaints it treats of, as you have had the most extensive practice, with the most distinguished success in curing them. Besides, the friendship which you had for my worthy patron Mr. Collins, and the many kindnesses which you have shewn to me, demand it as a tribute of gratitude from,

S I R,

Your most obedient,

And most devoted humble Servant,

Hampstead.

THOMAS HAYES.

Jan. 1st. 1786.

C H A

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T H E

P R E F A C E.

IT is unnecessary to inform the Public, that great numbers of persons of both sexes, are afflicted every Winter with most dreadful colds, coughs, and consumptive complaints, in this great metropolis, and in every large town in this kingdom, from the neglecting of slight colds in their early state. But common as this case is, the truth of which most men acknowledge, is it not strange that it should not be striking enough to enforce a stricter attention to it than is paid in common? For its consequences are not less (to speak within compass) than an annual loss of twenty thousand persons in the island of Great Britain; besides

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the numbers who suffer long and painful illnesses, from rheumatisms, pleurifies, quinsies, &c. arising from the same neglect, though they afterwards recover.

Physicians, from the earliest date, have cautioned the public against letting colds gain ground upon them; but as few read their writings, except those who make physic their profession, and as the world often suspects that what comes from them must be interesting to themselves only, I do not wonder that this caution is not regarded. It has always been difficult to persuade men of their true interests, or *Inoculation* would not have been so slow in advancing to the confidence and use we now see it in with the people; but, through the means of the learned and judicious Baron Dymisdale, it is become familiar and safe, and a great friend to health and beauty. The *Humane Society*, through the indefatigable zeal of Dr. *Hawes*, becomes also daily more and more conspicuously useful, in restoring
numerous

numerous members to the state; notwithstanding the many prejudices which long prevailed against it*. Facts, sooner or later, will support themselves, though as I have said they are some times slow; I have therefore some hopes that the object of the present trifle will be attended to in the course of time, and the more especially when it shall appear to have been undertaken from the very opposite to interested motives! For were the following hints strictly pursued, the author would have very little business, and half his brethren of the faculty must then be obliged to seek some other means of earning a livelihood.

Since the last edition of this pamphlet, I have seen some extracts from a book

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ON

* I sincerely hope that the designs of the Marine Society, will succeed equal to the extensive philanthropic views of those worthy characters, who have stepped forward with so noble a plan for the public benefit.

on the disease called a *Cold*, (written by Mr. Chandler, F. R. S.) in the Gentleman's Magazines for November and December, 1761. The work I have not been able to procure, but from those parts which I have seen, I consider it to be a very sensible work, but too full of technical terms to be understood by any but medical men.

Two very sensible writers, Tissot and Buchan, have addressed themselves to the public in general, on the subject of medicine; and many excellent directions they have given respecting the management of colds, and other diseases; but on this subject, they have not entered so fully as the disorders require; and in others they have not confined themselves within such limits, as to be of use without injury: Hence this little tract may not, perhaps, be without its use, as a companion to their celebrated works; for beyond a common cold, or a slight fever,

fever, persons are not competent to direct for themselves. It requires an arrangement, and comparison, of the several constitutions, and symptoms, together with a number of other minutiae, which are not to be acquired but by experience, and a knowledge of the animal œconomy; and with which very few but medical men are acquainted.

The works just now alluded to, are more calculated to inform young practitioners in medicine, and men of letters, than the people in general, who have not an opportunity to study the leading characters which distinguish one disease from another; for this is often attended with difficulty, and mistakes are sometimes made, even by men eminent in the profession. It is well known, that physicians never prescribe for themselves: The embarrassment of mind, and a number of ambiguous symptoms, that attend the sick, must for ever render it impracticable for him to be a competent judge
of

of his own disease; and the several changes and complications to which it is liable, serve still to increase the difficulty. How then, shall the many ignorant persons, to whom the above-mentioned books are left open, wherein many very potent medicines are recommended, be thought equal to the task of prescribing, either for themselves, or for their neighbours; whom they cease not on all occasions, from urging to take Dr. James's Powder, or some other favourite medicine, let the complaint be ever so different from what they conceive? Certainly the application of such powerful medicines, require the most judicious medical ability and experience,

Now to such as have a propensity to prescribe for the sick, without being very well acquainted with the nature of the disease, and the full powers of the medicines they apply, (except upon emergency, and where other advice is not readily to be had) I do most earnestly recommend that
they

they read the *sixth commandment*, and reflect, that by administering powerful drugs, much hazard is run, and many melancholy disasters happen. The intention may be good, but will that excuse or palliate the baneful effects which too often arise from officious persons tampering with so important a concern as a neighbour's life? the number of errors which are almost daily committed this way, none but medical men can know or conceive.

The intention of the present sheets, is to convince the public of the danger of depending too much upon that fatal expectation, of *colds going off spontaneously*, of trifling with little complaints, and of trusting to such means as are not likely to remove them.

If a cold comes on with any violence, apply the means here recommended for three or four days; if the patient does not get materially worse, or the complaint abate in that time, send for the best

best assistance in your power; if you are not able to send for a physician, let it be an apothecary of a humane and tender disposition; and one, who studies rather to remove the complaint, than to load you with a number of phials. Such was my worthy friend and patron, Mr. George Collins, surgeon, who was loved and revered by all who knew him. For knowledge in his profession, few surpassed him; in goodness of heart, fewer equalled him; and in his death, the rich and poor had an inestimable loss. He was the learned man's companion, and the poor man's friend; all Hampstead, with one accordant voice declare, they

“ Ne’er shall see his like again.”

I cannot forbear embracing this opportunity, to pay so just and grateful a tribute to his memory.

A man of the above principles, will not unnecessarily load you with nauseous drugs, nor will he add to the calamities of
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the poor tradesman, by extravagant charges, which is too often the rapacious practice of too many in the profession. To this will be said, ought not every man to live by his business; I fairly admit it, and most certainly expect to do so myself. To the Sharks of the profession I allude, and not to the honest, candid, humane practitioner, who feels for others ills, and others circumstances.

I have given two long quotations to confirm and illustrate my own opinions. I should not have made them so long, had the persons for whom this work is designed, a medical library to consult. They are too valuable not to be generally known.

To the Reviewers I am highly obliged. They have seen my intention, and spoken more favourably of this work than I thought it deserved, considering the many inaccuracies it contains. From their recommendation many have been sold, and, what will be a greater pleasure to them
to

to hear, is, that from many correspondents I am informed, some good has been derived, and some evil prevented.

It is also highly flattering to me, that it has met with the approbation of many eminent Physicians; and I hope the design will in some sort apologize for the deficiencies. If it should be found of the least utility to the public, I have my reward.

After what has been advanced in the former part of the Preface, it may seem strange that I should attempt to prescribe beyond a common cold. My reasons for it are :

First, Because many persons have desired me to make the additions which are here made.

Secondly, I have taken great care to advise such things only as cannot do injury, used with the precautions here directed.

Thirdly,

Thirdly, I have been more minute in some very essential means of recovery, than medical men's time, in much practice will permit ; and I expect more attention from addressing myself to the understanding than from a mere injunction.

Fourthly, I have taken more pains to shew what is injurious than what is beneficial ; at the same time hoping that no person will depend upon my book only, for the cure of so dangerous a disease, but I rather offer these additional reasons to warn the reader of the dangers which attend neglected Coughs and Colds, and to induce those who have unhappily got bad ones, to apply a simple, rational and approved method of cure, in preference to the thoughtless, imprudent means generally pursued.

With respect to the additions which are now made, the following are my reasons.

First,

First, I have been informed by those who very well know, that I ought to have given some directions relative to Consumptions arising from spitting of blood.

Secondly, Many persons afflicted with Asthmatic Coughs, seemed disappointed that nothing was said on that head.

Thirdly, The Hooping Cough has been rife this summer, all over Great Britain, and still continues to rage; and as many children and young persons become consumptive from the violence of that cruel disease, and many from mismanagement in the dietetic part, I have here touched upon it.

The author has much occasion for indulgence from his critical readers. As his professional avocations will not permit him to attend much to correctness in writing,

they must overlook many imperfections. He hopes that the object of the present work, will fully clear him of any other vanity, than that of desiring to be useful to his fellow creatures.

A S E R I O U S
A D D R E S S ,
Ec. Ec.

A COLD arises from the effect of cold or moist air, applied to the surface of the body and lungs, from going too thinly clad, or exposing the body to cold air, after having been heated by exercise; or, when the pores are opened from drinking warm liquors. &c.

Some persons will bear every possible change without much injury; whilst others cannot take the least liberty with themselves without suffering most severely. Therefore, every man should know enough of his own constitution, to regulate himself, as indeed, he, in this respect, may, if he will but give himself the trouble to think; and from hence,
whatever

whatever experience has taught him is improper, or disagrees with him, he should most carefully avoid.

Almost every body knows the symptoms of a cold, or what are the common sensations, or effects of what is called *the having a Cold*; but as these begin on some more violent than on others, I shall mark the common symptoms as they generally arise.

A Cold then, is a sense of chilliness on the skin, attended with a lassitude or weariness, and slight shivers at times, with a degree of headach, and flying pains in the small of the back, and limbs, a stuffing of the nose, frequent sneezing, and running of a clear limpid water from the eyes, and the nose, with, or without, a dry tickling cough, or hoarseness. Sometimes the sneezing, stuffing of the nose, or cough, give the first intelligence of its approach, and sometimes it is preceded by some of the other symptoms. These, as they are found to come on with more or less violence, permit the patient to continue in his usual employment, or pleasure, until they get so far increased, or have laid such hold on the constitution, as to oblige him to desist, unless nature, by some happy effort, restore the obstructed vessels to their proper offices, and
cause

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cause the several fluids to be circulated through the proper tubes. If the patient is not relieved this way, Fever, Rheumatism, Inflammation of the Lungs, or some other disease must ensue.

As coughs are the most common and violent effects of cold, and so generally disregarded, and as these are its most insidious attendants, and capable of bringing on the most serious complaints, one cannot too strongly enforce a proper sense of the danger that attends them. Inflammation in the lungs is excited, or increased by the perpetual action which is given to the chest by coughing; and great injury is done to the fine membrane, which lines, or covers, the passage to the lungs, and the whole cavity of the chest, as well as to the lungs themselves, from the same cause. The least inflammation happening to the pleura, or lungs, it is very much to be feared, may pave the road to consumption and death; and I am of opinion that three parts of the consumptions, which happen, arise from those commonly neglected trifling colds, (as they are but too commonly called,) causing inflammation, &c.

It is not unusual for a patient to tell you, that he ails nothing, except having a cough; when, in fact, his pulse is full, quick, and hard; his tongue coated with a thick white fur; and he makes thick muddy water, or such as is very high coloured; he has cold chills running down his back, soreness in the chest, and on the muscles of the belly, besides other symptoms of fever: But he will insist he has not the least fever, and that the cough is the cause of all these symptoms, if he happens to be informed of them; but it sometimes happens, that all these are disregarded, till he is obliged to take to his bed; for he persuades himself he cannot be feverish, because he feels himself cold; and, to remove which coldness, he continues to drink warm cordials, or hot spicy drinks; and, because he has no appetite, he eats rich relishing things; as he thinks, to give him one, and to keep him from being starved; all of which have a full tendency to encourage, or create inflammation, and would be the direct means to employ for that purpose, to an enemy, were one so disposed.

By these improper things, a trifling cold, in the first instance, is increased, and a fever and inflammation are caused; and especially if the

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person

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person be full of blood, and accustomed to *live* what is called *well*. The many varieties of the symptoms, and danger attending them, depend greatly upon the age, strength, and constitution of the patient, and the manner in which he has lived; for a person who has been accustomed to eat hearty suppers of gross animal food, and drink strong, viscid liquors, may be cut off in the course of a few days; while a thin, spare, or more delicate person, will linger many months, in consequence of having fewer materials in the habit for violent inflammation. The late Sir John Pringle, a distinguished ornament to his profession, says — “ Diseases, arising from cold, are all of the inflammatory kind, viz. coughs, pleurifies, peripneumonies, rheumatic pains, and the like, together with consumptions, which, in the army, are almost always owing to neglected colds.” — There is no doubt but it is so in the cities of London, and Westminster. In confirmation of which, permit me to lay before my readers, part of a valuable paper written by the late Dr. Fothergill, upon this subject.

“ The most trifling cold or cough, says he,
“ if it continues, may either advance gradually,
“ till it ends in immediate mischief, or may
“ leave

ON COUGHS AND COLDS. 2

“ leave such impressions as may subject the
“ patient to frequent returns: a cough, there-
“ fore, in children, or young persons, or in
“ persons of a certain make, at any time of life,
“ ought speedily to be cured.”

The way in which Colds do injury to the lungs and other parts, and lay a foundation for future mischief, is, by the action of cold upon the *very* fine vessels, which occasions obstructions, and a small degree of inflammation, but not violent enough, at present, to be very observable; but such a degree of tenderness is left on the parts affected, as often establishes an habitual cough, which is rendered more troublesome and dangerous by every additional cold; and which, sooner or later, causes the death of the patient, unless that care be taken, which we wish to point out, as necessary to prevent it. It is observed by Dr. Fothergill, that a cough, in persons of a *certain make*, should speedily be cured, and for this reason; such as are tall and thin, with long necks, flat chests, and with shoulders sticking out like wings, and otherwise of a delicate texture, are the most common victims to consumptions, and are what he means by a *certain make*: and, for the generality, those who

are said to be born of consumptive parents, or those who often, indeed, die of what is termed hereditary consumption, mostly answer this description, and are of that *certain make*, just now alluded to, and which is found to run thro' whole families. To such persons I cannot but recommend the greatest care, as colds, on them, commit the greatest ravages, and they are always susceptible of the smallest impression. It requires, I very well know, more persuasion than I am master of, to lessen this common, but fatal inattention: but, lest I should be suspected of having represented danger in too high a degree, and of having given an opinion not well founded, the continuance of that excellent paper of Dr. Fothergill's, wherein he so feelingly expresses the distressing situation to which neglect subjects the human frame, is here inserted: and I hope that any who may read it, will bear it strong enough in their minds, to make them carefully avoid every tendency to such neglect.

“ I know, gentlemen * (says Dr. Fothergill)
 “ that you (addressing himself to a Society of

* See Medical Observations and Inquiries, vol. iv.
 Physicians)

Physicians) as well as myself, often have
 “ occasion to look back at the fatal neglect,
 “ committed both by the sick themselves, as
 “ well as those who ought to have had their
 “ future health more at heart. With what ease
 “ would many of the most incurable consumptive
 “ cases have been prevented, or cured, at their
 “ first commencement? A person, whose
 “ emaciated figure strikes one with horror, his
 “ forehead covered with drops of sweat, his
 “ cheeks painted with livid crimson, his eyes
 “ sunk, all the little fat that raised them in
 “ their orbits, and every where else, being waisted
 “ ed; his pulse quick, and tremulous, his nails
 “ bending over the ends of his fingers; the
 “ palms of his hands as dry as they are painfully
 “ hot to the touch; his breath offensive,
 “ quick, and laborious; his cough incessant,
 “ scarce allowing him time to tell you, that
 “ some months ago he got a cold; but
 “ perhaps, he knew not how he got it; he
 “ neglected it for this very reason, and neglected
 “ every means of assistance, till the mischief was
 “ become incurable, and scarcely left a hope of
 “ palliation. You see multitudes of such objects
 “ daily, and see them with a mixture of anger
 “ and compassion for their neglect and their
 “ sufferings. Excuse me for trespassing in this
 C 3 “ manner

“ manner on your time and your humanity.
 “ Though it is not in your power to prevent all
 “ these sacrifices to ignorance and inattention,
 “ yet, if the faculty combine in prompting
 “ their fellow citizens to necessary care, and
 “ prompt them to suffer no slight beginnings to
 “ pass unregarded, however they may be
 “ acting against their own interest, they will
 “ have the satisfaction of contributing to the
 “ preservation of many a useful life ; for, per-
 “ haps, among those who perish by consump-
 “ tions, there are many who, in respect to the
 “ excellencies both of body and mind, have
 “ given indications of becoming conspicuous
 “ ornaments of humanity.”

Can there be a more affecting picture of a
 common and distressing scene ! and shall one see
 the same want of care continue to prevail after
 such a pathetic and feeling exhortation ? Yet,
 I very much fear, from the numbers who have
 applied to me in the last stage of the disease,
 without having been enjoined to follow any par-
 ticular or proper regimen, that the fault does
 not always lie with the sick only. Since the
 First Edition of this work, I have seen no less
 than ten persons in the last stage of consump-
 tion, who had never been bled, blistered, or di-
 rected

rected to follow any regimen, yet had been swallowing greasy emulsions and opiates to appease the cough, and nothing to remove the original cause of it.

Now that I have attempted to point out the dangerous consequences of neglecting coughs and colds, I shall next advise a plain and simple method of cure, which is in every one's power to make use of. If they begin very violent, or continue long, trust not too much to your own conjectures, but seek the best advice you can. If you are poor, there are numbers of Hospitals, Dispensaries, &c. in the metropolis, always ready to give the best directions; and, if in better circumstances, it will be found a folly to put it off.

As some of my readers may wish to know how cold air proves injurious to the constitution, and as it may furnish an additional caution for them to avoid exposing themselves more than is necessary, particularly those persons who have tender lungs, I shall give the manner as plain as possible.

The human body is furnished with innumerable minute vessels, which open their
C 4 mouths,

mouths, or beginnings, on the external part of the skin, all over the frame; and these communicate with every part of the body internally; these vessels are what are called the pores; they carry a moisture out of the constitution, called insensible perspiration, and the sweat, which is sensible; the insensible perspiration is constantly and invisibly exhaling from every constitution in health in very large quantities, even to the amount of several pounds, every twelve hours, in adult persons. The lungs are furnished with a very large quantity of it, which is very visibly seen on glass, or in a chaise, and which is thrown out by every respiration; every part of the chaise being equally moist at the same time, though the glass only points it out.

* Cold and damp air has the peculiar property of causing a spasm, or some other means of

* Dr. Blane, in a valuable work just published on the diseases of Seamen, says, "that moisture is pernicious both in itself, and as an instrument of putrefaction. All the complaints, called Colds, are more owing to wet than cold; and moisture may be the means of producing, or at least of exciting dangerous Fevers, when they would not otherwise appear."

acting

acting upon the vessels, or nerves, surrounding them so as to close up their mouths, and prevent the natural and necessary discharge of perspiration, sometimes over the whole body, and sometimes but in parts; and wherever this happens, the evil is presently felt by the patient. If it is only in one particular part, as in a sore throat, stiff neck, inflamed eye, or pains in any one particular place, it is termed local, and does not always affect the health; but if it happens in a larger degree, the health becomes injured from sympathy, or consent of parts, if not from general disorder. If much of the insensible perspiration is thrown into the habit, or, in other words, if much of the skin is obstructed, so as not to have a proper circulation, cold chills, and a sense of cold water being poured down the back, and loins, is presently felt; pain in the limbs, slight headach, and a kind of lassitude, or weariness, comes on, and is succeeded by fever, more or less.

As the lungs, and passage to them, are most exposed to cold, moist or noxious air, they the most frequently receive the first impression; then the cough is the harbinger of the effect. Inflammation either arises from the spasm on
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the part, in the first instance, or from the degree of agitation which is given to the chest, by the act of coughing. One remarkable effect of confined perspiration arising from colds in the eyes, nose, and throat, of the serum or lymph, which is discharged, of contracting such a degree of sharpness and acrimony, * as to scald the parts it comes in contact with; it is this which irritates the upper part of the wind pipe, and causes the perpetual coughing; and, perhaps, it is this kind of irritability, which may be the internal cause of fevers in general. And from hence it appears, why colds sometimes are easily cured, having more or less of this acrimony, and why they become so dangerous, some-

* It has been advanced by a very ingenious author, Dr. Reid, that the juices do not imbibe any acrimonious qualities in consumptive complaints. But the above is too common a fact to be disputed. If they contract it in one case, why not in another? for the catarrhal defluxion undoubtedly by some means gets a hot, sharp, caustic, or acrimonious quality. It is not my intention to enter minutely into these things at present, but to point out the dangers arising from the effects. The Doctor's book deserves the attention of every medical reader. See Dr. Reid, on Phthisis Pulmonalis.

simes, from trifling neglect, or after having indulged in heating spirituous liquors, &c. and from hence the absurdity of the adage of "*feeding a cold*, whatever justice there may be *in starving a fever*," clearly appears.

THE CURE of COLDS, COUGHS,

&c. &c.

IN curing colds, three things are essentially necessary; to open the obstructed pores; to discharge any irritable matter out of the constitution; and to observe such a kind of diet, as shall consist of a mild and innocent nature, and such as is calculated to prevent fever, and inflammation, and at the same time be conducive to recovery.

As soon as a cold, or cough, is found to come upon a person, he should immediately lessen the quantity of his food; it should consist of suppers moderately warm, especially at night, such as small broths, water gruel, and the like; the solids should be rice, sago, light puddings, fruits and vegetables; the drinks should be barley-water, small beer, apple-water, lin-seed tea, toast and water, or any other cooling liquid, that is free from irritable, or heating qualities.

A friend

A friend of the author's, as soon as he finds a cold come upon him (and he is very much exposed to the inclemency of the weather, from the nature of his business) confines himself entirely to this kind of plan, particularly to water gruel, sweetened with honey, which never fails to carry it off in a few days; he never is kept close to his house, but by attending to it early, prevents mischief, which would otherwise ensue; and most simple fevers, as well as colds, might be removed by such early attention and prudent care.

Perhaps it will be asked, is a man, with every trifling cold or cough, to lay himself up, and keep his house or bed? if so, he may be always nursing and coddling himself, neglect his business, and other important concerns. To which I reply, there is a medium to be observed in every thing; the time for confinement to the house must always depend upon the violence of the disease; neither is it always necessary to be confined at home for a cold. But suppose I really thought so, no prudent man, when he comes to consider seriously, that he stakes his health, and perhaps his life, to a day or two's confinement at home, or retrenching himself from rich food, wine, or heating things, will think

think much of the penalty to prevent it; for the enjoyment of health is the most important concern of human life; riches, honour, and power, are burdens without it; therefore every prudent means of obtaining it, is an indisputable duty implanted in our nature; and nothing more contributes to that end, than attending early to slight colds, in order that they may not prove the source of greater mischief.

If on approaching the cold air, it causes a violent coughing, it is necessary to keep in a warm room till the tenderness of the lungs is gone off, otherwise, except in the case of fever, it is not requisite to be kept to the house, but to attend to the diet, warm suppers at night, &c. which we shall mention elsewhere.

Fevers and colds become heightened by the continuing to eat animal foods, rich sauces, and drinking of wines and spirits, which are designed to support animal strength, and furnish the body with activity and fire, for exercise, pleasure, or business, which at this time, instead of being wholesome and friendly to the constitution, become its enemy, and nourish fever and inflammation. For this reason the all-wise Creator has deprived us of appetite in fevers, and rendered

dered food loathsome to the sight ; the cooling fruits and vegetables, and preparations of them, possess more nourishing properties than is commonly believed ; these were the physic of the primitive physicians ; and many of the moderns, who are the greatest ornaments to this country, perform the numerous cures by a judicious adoption of them. Boiled turnips, roasted apples, asparagus, falfafy, scorzenera, lettuces, cauliflowers, brocoli, &c. possess many saponaceous, cooling and antifebrile principles, which correct the blood and juices, dissolve obstructions, and will do * more in eradicating the scurvy, and other foulnesses of blood of that nature, than all the Norton's Drops, Frankfort Pills, Mercurials, Antimonials, &c. in the nation, and they are perfectly innocent, which

* At some future period, I propose to offer to the world, some observations on many efficacious simples of this kingdom ; for, while we are traversing from pole to pole, in search of new medicaments, we are neglecting many very valuable ones at home. Such a work no doubt will be very useful to the public ; but I hope some more able pen will take the hint, and supersede me in so necessary an enquiry ; in the mean time, whatever future experience or study may throw in my way, to that end, shall be given with candour and truth.

is more than I am able to say of those medicines before-mentioned.

The above kinds of nourishment, together with a plentiful dilution of soft drinks, involve the floating acrimony, lessen the spasmodic affection, and tend to promote perspiration: Small wine, or lemon, or vinegar whey, amazingly contribute to this end. If they are made too strong of wine, or spirits of hartshorn, &c. they heat and stimulate, and have a very contrary effect to what was intended, the patient becomes hot, and restless, instead of having a moist skin and a refreshing and balmy sleep.

Bathing the feet in luke-warm water, or bran and water, a little hotter than milk just taken from the cow, going to bed, is an excellent simple mode of producing a regular circulation, and gentle perspiration. Great caution is necessary here, not to get fresh cold; the feet should be carefully and speedily wiped dry, and afterwards wrapped up in a warm dry flannel, and the patient to go immediately into a warm bed. If the water be too hot, it proves a great stimulus, and does injury, and if cold can do no good. It is no uncommon thing for persons who drink gruel, and other warm liquids,

to promote perspiration, that they take them before they undress, by which means, if it happens to be cold weather, they get fresh cold in undressing: for the warm drinks make them often break out into a sweat, which becomes check'd before the patient gets into bed. I would therefore advise them to be taken after the patient is in bed, and then for him to lie down immediately, and to keep still and quiet for some time, and no doubt but the expectation will be gratified.

If the patient has a cold, attended with stuffing of the nose, a cough, and hoarseness, or either of them, very bad; let him receive the steam or vapour of a large pan of warm water, wherein a few camomile flowers, or elder, or rosemary, have been boiled; this steam should come in contact with the whole head, and face, and be continued for a full quarter of an hour, or more, and should be kept hot by fresh supplies of hot water being put into the pan; the head should be covered with a flannel, or some other warm cloathing, to prevent cold air coming at the same time, and, after this process is over, the same care is necessary to keep the perspiration from being checked; the pa-

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tient

tient should breath through a handkerchief, that the cold air may be first warmed before it gets to the lungs ; if the complaint is only about the head and throat, and no cough attends, a little vinegar added to the other ingredients may be of use. The bathing the feet does neither preclude the warm drinks, or this remedy being made use of.

If the cough is the most troublesome complaint, besides the means just mentioned, the patient must be perpetually taking soft, mucilaginous drinks, prepared by the boiling of quince-seeds in water, and sweetened with honey, or sugar-candy, to the palate ; or linseed-tea ; a decoction of barley, figs, and raisins, &c. A tea-spoonful of Paregoric Elixir *, or syrup of white poppies,

* Where-ever paregoric elixir is recommended, I would wish it to be understood, that where there is much heat, and opiates are thought proper, that the preference should be given to the syrup of white poppies, or a few drops of laudanum ; as the elixir is prepared with spirits of wine, and may be too heating. This observation I own escaped me in the first edition, and I am indebted to Dr. John Jebb, F. R. S. for this necessary hint. For while I am pointing how to avoid evil, I own it is right to take care of not falling into it myself.

in half a pint of either of them, may be taken by spoonfuls, which will sheath the passage to the lungs, and quiet the cough. Currant jelly, and some of the soft marmalades, contribute to the same end. Rob of elder, is a most excellent medicine for this purpose, and is aperient, sudorific, and cooling, it is preferable to spermaceti, and oily medicines in general. But as oils and spermaceti have sometimes their use, I would recommend them not to be taken in such large quantities, as is too commonly done, because they are apt to turn rancid upon the stomach. When they are thought proper, the following smooth emulsion is deemed excellent.

Take of barley water, six ounces by measure; white sugar, and powder of gum arabic, of each three drams; incorporate the sugar and gum arabic together in a mortar, with a small quantity of the water, and gradually mix one ounce of fresh and sweet oils of almonds, lin-seed, or of olives, and then by little at a time, add the rest of the water, and it will be a soft white emulsion.

After the same manner, a dram or two of spermaceti may be dissolved, with double the quantity of mucilage of gum arabic, and a little sugar, with six ounces of barley water or pure water, and a smooth emulsion will be prepared. The spermaceti should be free from rancidity, and when the emulsion is made, it should not be kept above twenty-four hours, as it is apt to get sour, or to ferment.

It is not uncommon for a physician to forbid all kinds of animal food, broth, and wines, lest his patient should be heated by them; when perhaps in his prescription may be found strong cordial water, and the spermaceti dissolved with the greatest part of the yolk of an egg, which every one knows is not acting with consistency.

If opiates are proper, half an ounce of syrup of white poppies, or from ten to thirty drops of laudanum may be put into either of these emulsions, and a spoonful taken now and then, according to the urgency of the cough, which will be spoken more of when I come to treat on opiates.

The

The following emulsion may be prepared of white poppy-seeds, or blanched sweet almonds, which will not only sheath the passage to the lungs, but be nutritious and cooling, and very good in fevers of the inflammatory kind.

Take of almonds blanched fresh and sound, or of white poppy-seeds, two ounces, beat them in a marble mortar with the same quantity of sugar, till they are smooth, adding a small quantity of water to facilitate that purpose; a quart of Bristol, or pure water or barley water may be added to these ingredients, and strain it through a muslin rag or fine sieve, and then it is fit for use; if it is required to be more mucilaginous, an ounce of gum arabic may be dissolved in it. Half a pint of it taken a little warm now and then wonderfully sheaths the sharp mucus, and dilutes the acrimonious juices in the first passages.

I have already spoken of one species of inhalation, viz. the vapour from a pan of water and camomile flowers, but to answer a different purpose than what I am now going to advise another for. The great Boerhaave, Baron Van Swieten, and the late Sir John Pringle,

very

very strongly recommended the receiving of warm vapours to the lungs, in coughs and complaints of that organ; my experience, if of any weight after such authorities, confirms the veracity and usefulness of them. Mr. Mudge, a very ingenious surgeon at Plymouth, has lately published a book, describing a machine which conveys the vapour very commodiously to the lungs, which he calls an Inhaler, wherein he declares, that the use of a tea spoonful of paregoric elixir, taken at bed-time in some warm liquid, and the use of the warm vapour of simple water through his machine, will cure a catarrhus cough in a night's time. The public are much indebted to Mr. Mudge for his ingenious invention, but many of the poorer sort of people cannot afford to pay half a Guinea for it, a price certainly extravagant for so simple a machine. I could wish the poor to receive the advantages of health equally with the rich, and the means of obtaining it, when they unhappily want it.

Those who cannot afford to buy the Inhaler, may make use of a large coffee-pot, half filled with warm water, or by receiving the steam through a funnel, by inverting the broad part
over

over a vessel of hot water, and apply the mouth to the small end; this will be a good succedaneum where an Inhaler is not to be had.

Every cough, whether moist or dry, attended with, or without inflammation, receives benefit from the use of the Inhaler: as also pleurifies, sore-throats, asthmas, and every affection of the chest, except in spitting of blood. Mr. Mudge recommends the vapour of warm water only: but I believe that many different herbs, boiled in water, would furnish certain useful virtues in particular cases. Indeed Sir John Pringle says, in his diseases of the army, that Dr. Huck Saunders † (a name as respectable as any among those who practise physic) had found great benefit from the addition of a little vinegar, where tough phlegm abounded.

† This gentleman is lately dead, to the great loss of science, and every one who had the happiness of knowing him. His humanity, and skill, were great, and he was always ready to communicate the result of his extensive experience to those who had not those opportunities. I am indebted to him for many valuable communications.

Nothing can more strongly recommend the act of inhalation than the following quotation from the very eminent Dr. Huxham, and as it confirms my mode of treatment, I beg leave to give it at large.

“ But nothing more effectually promotes ex-
 “ pectoration, (by attenuating and resolving the
 “ impacted matter) than drinking freely and
 “ frequently of cooling, relaxing and gently
 “ saponaceous liquors ; such as thin whey, the
 “ barley ptisan, with liquorice, figs, &c. the
 “ decoction, or rather infusion, of the pectoral
 “ herbs, as ground-ivy, maiden-hair, colt’s-
 “ foot, hyssop, &c. these should be gently aci-
 “ dulated with juice of lemon, or Seville-
 “ oranges ; if any thing more detergent in the
 “ above drinks is wanted, honey may be added,
 “ an admirable natural cordial soap, thrown
 “ almost out of the modern Materia Medica,
 “ I know not why, nor how, for where it gripes
 “ or purges one, it agrees with a thousand,
 “ and even its griping and purging quality
 “ may be easily corrected by boiling. Hip-
 “ pocrates used oxymel and mulsum in such
 “ cases, and advised against drinking mere
 “ water, in pulmonic cases, as neither good
 “ for

“ for the cough, nor to promote expectora-
 “ tion ;—any of all these things by turns drank
 “ warm, answer the above intention exceedingly
 “ well, if taken in frequent but small quanti-
 “ ties, sipping them as it were perpetually ; for
 “ by this means much of the relaxing and re-
 “ solving vapour is also drawn into the lungs,
 “ and much of them absorbed by their imbi-
 “ bing vessels, so that the relaxing and diluting
 “ is thus carried on in a double manner, and
 “ of course very effectually. Very large
 “ draughts should not be taken at once ; for
 “ they overcharge the stomach, produce indi-
 “ gestion and flatulence, and force up the mid-
 “ riff too much, which greatly embarrasses the
 “ respiration ; therefore Hippocrates advises
 “ to drink in those diseases, out of a cup with a
 “ narrow mouth, probably both that the liquor
 “ and vapour might be preserved warm longer,
 “ and that less might be drank at a time, and
 “ also that the steam might be more copiously
 “ carried into the mouth and nose.—Many
 “ kinds of drink he advises for this purpose,
 “ but particularly recommends barley water,
 “ honey and water, oxymel, and vinegar and
 “ water.”

From

From hence it appears that warm vapour is of signal benefit ; I would not recommend any other in simple coughs or colds, than the vapour from water in which have been boiled camomile, or elder-flowers, milk and water, marsh mallow tea, or some such simple things. There is a liquid called Stern's Æther, which I think a great deal too irritating for lungs in any degree inflamed. For the great intention of inhaling, is to relax the rigid or irritable membrane that lines the trachea, or passage to the lungs ; to sheath the parts that are excoriated by the sharp mucus, or to lessen the sharpness of that mucus, and cause it to be more easily spit away.

The cold air should be carefully prevented from coming to the lungs after having inhaled ; it is better done in bed than up, for this reason, and also because it generally promotes perspiration.

If a cold be at all severe, nothing can so soon contribute to lessen that severity, and prevent a fever, as gentle purging. I prefer the mild simple things, to such as are more active and violent, for it is not the very great number
of

of motions that are procured, that give the expected relief, as the stronger purges hurry through the bowels, and do not carry the irritating causes out of the body, nor do they tend to cool the blood and juices, and thereby prevent both fever and inflammation, which is the material object a Prescriber should have in view. Manna, and Glauber's-salt, cream of tartar, tamarinds, rhubarb, and sal polychrest, lenitive electuary, or indeed any other gentle cooling means, which the patient has been accustomed to use, will be right to have continued. The following mixture is very well calculated for this end, and will agree with most constitutions :

Take of Epsom, Glauber, or Rochelle salt, one ounce ; boiling water, or simple peppermint-water, four ounces ; tincture of rhubarb, or of senna, one ounce and a half † ; mix. Half or a third of the whole may be taken in the morning, and repeated once in two hours

† When there is much heat or fever, the tinctures being made of spirit must be omitted, and a dram of senna leaves infused in the liquids, to make the medicine more active, if necessary.

till

48 ON COUGHS AND COLDS.

till a motion or two be procured. An ounce of manna may be added to it, if the patient pleases. As a person, hard to purge, can take the whole of the above mixture, it must be properly proportioned to such as are more easily moved.

Such as cannot take a liquid, may use the following pills, and dilute with barley-water, warm tea, or water-gruel.

Take of rhubarb in fine powder, and sal polychrest, of each one scruple; calx of antimony unwashed ten grains; of syrup of buckthorn a sufficient quantity to make eight pills, four of which may be taken at night, and the rest in the morning, if no effect be produced before; if these should not be found quick enough, for any particular constitution, a few grains of extract of jalap may be added.

For those who are used to take an electuary, cream of tartar, and lenitive electuary, mixed together, will often answer the purpose. A teaspoonful taken night and morning, so as to procure two motions a day, is very sufficient.

After

After the body has been sufficiently opened, (or indeed before, if the symptoms are pressing), that is, if there be much fever, pains in the limbs, head, or back, the cough hard and troublesome, or there be any darting pains in the chest, or under the breast bone, or if the muscles of the belly be made sore by the perpetual coughing, bleeding is absolutely necessary : for these pains denote inflammation having seized some part, and as nothing stops the progress of inflammation so much as bleeding, from six to ten ounces of blood, may be taken away immediately ; a few ounces taken away *now*, may prevent the repetition of the operation very many times, if this period be missed, and the inflammation suffered to go on for the want of it. You will perpetually hear of danger arising from bleeding, of producing agues, or that it is not right to bleed in cold weather, or some other simple reason given why the operation should not be performed. Wherever there is a tendency to inflammation, and particularly in the lungs, none that are in their senses will hesitate to take blood away. Suppose you are nervous, gouty, or low, (terms very vague and uncertain, and often mislead) the loss of a few ounces of blood

will

will do no great harm, but the omission may. The quantity must be proportioned to the necessity, age, and strength of the patient, and to the manner in which he has been used to live; for one would not bleed a delicate person, and one who lives regular, in the same quantity as one is who lives freely, and is more robust.

The great fault is, that bleeding, like other means neglected too long before it be performed, loses much of its power. For when mischief has taken place, the disease will have its regular course, and twenty repetitions will not have such salutary effects, or be so able to reduce the inflammatory state of the blood, as one timely one would in the beginning. A few ounces of blood in coughs may generally with safety be lost; but a repetition requires able advice to direct properly.

After a proper regimen has been observed, the body been opened, and a few ounces of blood taken away, if the cold should not have been attended to in time, or not get any better with the above mentioned treatment, antimonials, given in mild doses, very much contributes to relax the skin, open the pores, and
remove

remove fever and inflammation; and indeed it requires all those very often to remove bad colds.

In administering antimonials, I am not prejudiced in favour of any particular preparation, whether antimonial wine, kermes mineral, emetic tartar, or Dr. James's powder; I think indeed that all the virtues of antimony, may be received from emetic tartar, or kermes mineral, the former in doses of a quarter of a grain, to half a grain, given once in three, four, or six hours, in any vehicle; and the latter, from one to three grains in the same distance of time, as they may be found to operate: A nausea, or sickness being produced, and succeeded by sweat, or a few gentle motions, or both, is the operation I would wish, but not with violence; for persons often encrease their colds by being obliged to get out of bed frequently when in a profuse perspiration, from the violence of the antimonial. Indeed, when there is much bile in the first passages, it serves to encrease that violence. The opening the body with my mild purge, previous to the administering antimony, prevents this taking place.

In

In twelve hours, fever, and cold will often be carried off by a prudent use of antimonials; but bleeding and purging should precede their use. If Dr. James's powder be preferred, from three to five grains, may be given every three, four, or six hours, as was before advised. The patient does not reap benefit from being ruffled by it; and persons full of blood, and those that are weakly, receive much injury from this cause, and I fear that the indiscriminate and officious use that is made of it, does much harm. The more mild and regular it operates, the better and safer; that is, by gentle sickness, sweating, urine, or stool, or all together moderately.

One caution is necessary to be observed by those who give James's powder, according to the directions in the packets, or papers, which are sold. Always to weigh the quantity with nicety which they mean to give, and never to trust to what their paper states it to contain. They profess to put into each paper, twenty grains and a fraction, but the Author has weighed them often, and found some to contain twenty-nine grains in each single paper, and in others, fourteen grains only; and any
candid

Candid person may easily judge the mischief that may be done by seven or eight grains, given to weakly persons, when five were only intended; and what delay, and of course injury, must accrue to others, in giving and depending, upon the operation of five grains, when three, or three grains and a quarter, had only been taken. It is a medicine of great power, and great virtue, given properly; but in these uncertain doses, and when not properly adapted to each particular case and constitution, is capable of proving mischievous. The public have a right to exactness from the proprietors of the powder, considering how well they are paid for it; but above all, when it is considered that the health and lives of his Majesty's subjects are at stake.

If the body and skin should be very hot and feverish, five or six grains of nitre, in barley-water, or the almond emulsion, will lessen the heat and not interfere with the antimonials, when taken between the hours of taking the antimony.

The following mixture is one of the best general medicines to cure fevers in most constitutions

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stitutions that can perhaps be prescribed, and possesses no quality likely to do harm, a circumstance which the author would wish a prescriber to have always in view.

Take of the fresh juice of lemons, three ounces; salt of wormwood, two drachms; emetic tartar, one grain; simple spear-mint-water, five ounces; sugar as much as may be palatable. The whole of this mixture, will make four doses, for an adult person, and may be taken at the distance of four, five, or six hours between each dose; younger persons may take two spoonfuls at the same distances of time, as may be found necessary; but I would advise people not to trust to this, or to any general medicine too long, for fear some symptom, attending particular cases and constitutions, should indicate some other mode of treatment, and which none but the experienced can distinguish or discover.

Dr. Buchan has very strongly recommended a plaster of Burgundy pitch, to be applied to the back for an obstinate cough; I have known it of service, but a blister is often a little troublesome and more speedily beneficial.

Where

Where a blister is objected to, use the other, but depend not on externals only, of any kind.

Opiates are often given in troublesome coughs, and no doubt are essentially necessary to abate the violence of them, and to procure rest, for the continual action of the chest and lungs, and muscles surrounding them, which is occasioned by the pain and agitation of coughing: but as opiates encrease the heat of the body, they should not be given before bleeding and purging, or where there be much fever, but by the hand of a master. Dr. Fothergill held this opinion.

After the heat and fever are abated, and there is a free expectoration, and the cough still very urgent, a tea spoonful of syrup of white poppies, or five drops of liquid laudanum, may be taken at going to bed, in a tea-cup of any of the before-mentioned emulsions, or mucilaginous drinks; if this should not be sufficient, a larger quantity may be taken to answer the purpose; but make the addition with caution.

Very obstinate hoarsenesses, when unattended with fever, I have known cured in a day, by taking a tea-cupful now and then, of a strong decoction of horse-reddish; where there is a fever, it might be too heating, and likely to encrease it.

Farther with medicine I mean not to go, nor even quite so far, if violent symptoms come on, without calling in good advice, as I have all along intimated. But as so many people have a propensity to *Quackery*, I would wish them to do it with as little mischief as possible, and as near the regular practice as may be, and for this reason, there is held out to them, safe, and mild remedies, with cautious rules for administering them, and I doubt not but if they are given properly, they will have the desired end.

I think it my duty, after having given some directions how to remove colds, and prevent them from becoming dangerous, to offer a few remarks, whereby colds may be prevented, and constitutions, subject to catch them, rendered less liable to do so to, to make the weakly to become strong—and the strong more vigorous.

In

In a variable climate like ours, much will depend upon regularity in living, and the mode of dressing agreeably to the season of the year, and severity of the weather. In England, we are very neglectful in this particular, but a great deal depends upon custom begun early in life, and regularly continued. Very weakly constitutions may be very much improved, and strengthened, by training them gradually to bear the vicissitudes of this changeable atmosphere, and make them become what is called *hardy*. But I have seen this very often carried too far; the vigour of the body as well as the mind, in some constitutions, may be very largely encreased, whilst in others, if you press it beyond a certain *pitch*, you injure both. Parents, who have these objects in view, would do well to consider the natural strength of both body and mind, and to bend the bough very gradually; otherwise, they will often break it in the attempt. So it is in persons that are ill, or recovering from sickness. When the body is in good health, it may be made, by degrees, to bear almost every change without inconvenience, but whilst disease, or its effects, remain upon it, the most trifling innovation in diet, clothing, &c. is not without hazard of danger.

I am informed by a gentleman who has travelled much, and often been in China, that, the changes from heat to cold, and from cold to heat, are more regularly progressive there, than in any other country he had seen, or heard of; and that the natives as carefully attend to putting on, or pulling off, their cloaths, as the cold is found to encrease or diminish, with the most religious observance. What a pity it is that Britons, so famed for *Philosophy* and the *Arts*, should be as careless in general, in the most valuable of all arts, *that of preserving health*, as if they were not acquainted with either.

Nothing, perhaps, contributes more to strengthen the constitution, and render the body less liable to catch cold, than bathing in the Cold Bath, or in the Sea. Yet this should never be used whilst the patient has a cough or cold upon him; but if it is begun in relaxed or weakly constitutions, or such as are called nervous, colds and their consequences will be prevented. It may be used twice or thrice a week.

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I have often observed that children and others have been sent to the sea for the sake of bathing in the salt-water, when it has been attended with much inconvenience in other respects; the sea air has some advantages in some particular complaints, but in general, every advantage of sea water may be derived from pure water, just pumped or drawn from a well into a large vessel; or those who have an opinion of salt, may put a pound or two of bay salt into the water; this will make a large tub equal in saltiness to sea water. Those who dip children for the ricketts, or any other weakness, particularly in summer, should change the water three times a week, and not let it receive the heat of the sun; and the addition of the salt in summer will have some advantage in making it colder, and therefore more strengthening.

The advantages derived from washing children in cold water every morning, cannot be too often enforced on the attention of parents: it strengthens their tender limbs, and keeps them from the ricketts, and the habit of taking cold. Children cannot be too soon inured to bear all kinds of weather.

Warm cloathing now demands my most serious recommendation, and the readers most serious observance, as it is of the utmost consequence, to prevent catching cold, for a variety of changes frequently happen in one day, and often in the space of a few hours, in this uncertain climate. The keenness of the North, and North-east winds, and the many ways and situations in which the human body becomes necessarily exposed, render it proper to fly to cloaths sufficiently warm to prevent their baneful effects. We see what destruction they make on the tender herbage, and even upon hardy vegetables, designed by nature to defy their piercing powers. And as Dr. Aken-side, in the Pleasures of Imagination observes.

They sourly check the progress of the year.

As vegetable life is destroyed by cold, so is the life of man very frequently, by its producing fevers, rheumatisms, &c. but it very often happens from his own neglect of doing what is right in time to prevent it. Moisture is also very injurious to the human body; but cold and moisture conjoined together, are more power-

powerfully bad then either of them separately. Therefore whoever is subject to catch cold, or have winter coughs, or asthmas, sore throats, rheumatisms, &c. will find their interest in seeking the friendly aid of a flannel waistcoat worn next to the skin, and put on before the cold weather sets in, and also in warm stockings and shoes; for the consent between the feet and the lungs, throat and bowels is very great, and many a fit of the colic, &c. may be prevented by attending to this little matter.

It may not be improper to remark, that those who for the generality are most exposed to cold air, are the least subject to get cold, and will be found to enjoy the best state of health. But such persons as have tender lungs, cannot bear much exposure to cold in the winter of this climate. As there cannot be any certain rules laid down for the preservation of the health and life of man; the savage of the woods, and the citizen of the world, being both liable to diseases, therefore what most agrees, or most offends, is not only the duty, but the interest of every man to study, as the knowledge of it is within the reach of every man to obtain. If any are very chilly,
 or

or much pinched by the cold, when in good health, it will be right to put on cloaths sufficient to remove that inconvenience. If any can bear the cold, and vicissitudes of winter with thinner cloathing, and enjoy good health, there can be no reason for them to alter any mode which agrees with them; so that every man must judge for himself. People in health have powers which resist many evils of climate, &c. but when once the body has been weakened by previous illness, it requires much caution, and much time to regain to those powers, equal efficacy and strength, which they had before.

So it is with that useful body of subjects the labourers in agriculture, and in other arduous employments in the open air: habit begun from infancy so far steels their nerves, as to resist almost always the effects of heat and cold; but they very often fall victims to their own incaution, though they know that it is bad for them, as by drinking cold drinks, and lying on the cold grass, or standing still, when they are in a sweat, or much heated by violent exercise. If this were frequently spoken of from the pulpit, or by gentlemen, and farmers

mers to their several labouring men, it is not improbable but it would be better observed, then if left to their own discretion.

The sitting in rooms after they have been just washed, as is too often the case of the lower orders of people, is the cause of much mischief. The living in damp stone kitchens is also the destruction of many hundreds of servants yearly.

The letting wet cloaths dry upon the back has caused many a grievous rheumatism, colic, and ague, which might have been avoided. Many young workmen, such as masons, plaisterers, carpenters, paperhangers, painters, &c. are cut off in their prime, from the ill effects of cold damp houses, wet walls, &c. I have often known persons get very severe colds, by sitting in cold damp churches during the time of service, and others have been equally hurt by having sat in a best drawing-room, which was appropriated to receive company and used only now and then; a fire has perhaps been lighted a quarter of an hour before the company met, which draws out the damp of the furniture into the room, but does not dissipate it.

it. The persons sitting still all the time, are in no situation to resist the bad effects.

Beds not having been lain in some time, contract a damp particularly hurtful to many; ill-dried linen is also another mighty evil, and those who have the health or happiness of others at all at heart, would do well to be careful of the above particulars*.

No

* I am sorry a so deservedly great physician as Dr. Hebbarden, should even doubt that wet rooms, damp beds, wet linen, &c. should not occasion illness to the human body, when it has not only been recorded by physicians from the earliest ages, to the present day; but almost every day's experience produces somebody who has suffered from one or other of the above causes.

It is true that much prejudice has prevailed against the bark and many other valuable medicines; and prejudice once received, is very difficult to be rooted out of the mind of man; and who shall say that he will resist it, when so learned and discreet a man as Dr. Hebbarden is found to be open to its influence. He deserves highly from his country, who endeavours to dispel the least mist from any part of obscured science; but surely the mischeivous effects arising from damp
beds,

No body of men enjoy better health than coachmen and chairmen, who go through every vicissitude of weather, and I attribute it to their going so warmly cloathed as they do. Their health would be still more permanent, if they had not a bad custom of drinking warm purl, and other warm drinks, and immediately after going into the cold air; whereas a glass of any spirits, or a pint of cold strong beer, fortifies the body against cold much more, be-

beds, and wet linen cannot possibly be ranked in that class.

This subject has attracted my attention ever since the Doctor's paper was published, and many cases I have collected which would put the matter beyond all doubt, did the public require them, or could so feeble an evidence as mine have any weight.

On any other subject, I should not dare to differ from so eminent a man; and I do it here with diffidence, urged on by truth, arising from facts, the result of careful observation, made with this particular design, and not from any pre-conceived notions, or prejudices got from others. See Medical Transactions, vol. 2.

cause

cause the warm drinks open the pores, and the cold ones do not.

I am sorry to see so many absurd fashions invented for my fair country-women, fraught with so much danger to their health, and of course to their beauty. If they are to wear great hoops, short stays, and petty-coats up to their knees, they require warm flannel drawers, and warm under coverings to keep them from the influence of cold. It is a matter of some surprise, that delicate as they really are, more mischief does not accrue from such modes of dressing. In a morning they are wrapped up, with those close warm gowns, and the face, neck, and chest, carefully guarded from cold by a warm cap and handkerchief; and in the evening, are seen half naked in the street, the play-house, or in a cold coach. Or, perhaps, after sitting in a warm room, heated with large fires, a number of candles, and full of people for three hours together, then, all on a sudden, they walk through a cold airy gallery, and winding stairs, with currents of wind blowing up; and afterwards are driven a mile or two in a cold coach, through pinching frost, or a damp midnight air.

Our

Our young men are equally careless in conducting themselves in the same things, as well as in their cloathing: one minute they are in a hot crouded play-house, and the next exposed to the cold piercing eddies, and great currents of air that are felt round its avenues, the larger streets, and St. Paul's; and so indiscreet is pride, that you seldom see them in a great coat when they are dressed for the evening, although they have been wearing it almost the whole day before.

I observe many of our *public Offices* are kept remarkably warm with fires, and that the clerks belonging to them are very subject to have consumptions, asthmas, and other complaints of the chest; partly as I apprehend from their sedentary way of life, and the certain position of the body for hours together when writing; and partly from the sudden and unguarded manner of exposing themselves to the cold when they leave their employments. The mouth and nostrils should be guarded with a handkerchief, for some time after they go out as well as the having a great coat on, for the cold air does mischief this way very often.

Our

Our young citizens are very regardless of this circumstance, one part of the day they are in a close warm counting-house, and in the evening you see them with thin light cloaths, with the breast open, and perhaps under a course of mercury. Mercury is bad for the body when troubled with a cold, and it is also dangerous to be exposed to wet and cold during the time of using it. I could wish the morals of the people were such, as not to require its so frequent exhibition; but as I cannot be expected to reform the age, it is my duty to recommend such means as will prevent its doing mischief, where its specific virtues are required.

Too warm cloathing relaxes and debilitates the body, and promotes too plentiful perspiration; a medium is therefore to be observed, but a want of that which is proper, is attended with more serious mischief than too warm a cloathing, if it be not imprudently thrown by *suddenly*.

Children, that are subject to gripes, convulsions, coughs, &c. should always wear warm stockings; these, and many of their complaints,

plaints, arise, from their limbs being chilled, by the severe cold of our winters, and their legs and feet not being covered at all—A pernicious custom!

To conclude, if every person who finds himself afflicted with a cold, would take the trouble to read this pamphlet with attention, so as to understand its contents well, and not cursorily to catch one part, without attending to the other; and afterwards carefully to apply the means here recommended, I flatter myself, without presumption, that the complaint would soon be removed, and the patient, instead of languishing many months of a consumption, in consequence of having neglected this care, would enjoy good health, and vigour. Was this to be attended to in general, it would soon put an end to the disputes of the learned, whether our *births*, or our *burials*, exceed each other; by the great numbers of subjects it would save to the state, and shew foreigners, that consumptions are rarely, if ever contagious in *England*, and by no means so common as they are in Spain, Portugal, and Italy. The great contagion here is, *carelessness of colds in their origin*, which I hope

to see lessened every day, it is *my* most anxious wish, and if I have the pleasure to hear, that, *but one parent saved his darling son, or one son an affectionate and tender parent, through these directions, I shall have a rich reward;* and it will confirm me in an old favourite motto, that
“ NO LIEE IS SO PLEASING TO GOD, AS THAT WHICH IS USEFUL TO MAN.”

Successful

SUCCESSFUL DIRECTIONS.

HOW TO

PREVENT AND CURE CONSUMPTIONS.

*For want of timely care,
Millions have died of medicable wounds.*

AND DR. ARMSTRONG.

THERE is no disease which robs the world of so many useful members of society as Consumptions; the merchant, the mechanic, and the scholar, alike become victims to its fatal influence; for not only men of the greatest talents, but women, of the fairest forms and liveliest sensibility, who might have become shining ornaments to the nation, and patterns of domestic happiness, are untimely snatched away by this cruel distemper.

Consumptions have always been common in this country, and I very much fear, they are found rather to increase than diminish, and probably from some of the following causes. Our youth are not so robust and strong as they used to be, owing to the present modes of living, and other bad habits. We have many more persons employed in sedentary trades than used to be, in large towns, and in many businesses, which furnish the surrounding air with unwholesome materials, which are drawn in with the breath, and injure the lungs; many are also engaged in employments which require an almost constant bending of the body forwards; and others to press upon the chest, and so cause additional labour in respiration; and consequently to the circulation of the blood.

Pleasure, and dissipation, are also sought after by all ranks of people; the numerous places of public amusements, are so many seed beds, and nurseries for colds. In summer, as well as in winter, the same danger prevails; owing to persons not considering sufficiently the nature of our climate. At Vauxhall, and other nocturnal amusements, what numbers may be
seen

seen at midnight, as thinly cloathed, as they were in the middle of a hot day? The hotter the day, the larger quantity of dew naturally falls, and sometimes the whole atmosphere is loaded with watery vapour, and a brisk east, or north east wind, blowing at the same time; the pores being opened by the heat of the day, more readily become suddenly closed, a check of perspiration takes place, the lungs at the same time imbibe the damp, and cold air, and a foundation is often thus laid for future serious mischief.

*But while the chilling dews descend,
Let nothing tempt you to the cold embrace
Of humid skies.*

DR. ARMSTRONG.

Our boys, particularly in the metropolis and other large places, have too early and too frequent a knowledge of the sex, which lessens the growth and strength of their constitutions. Nor does the mischief stop here, for a *certain disorder* is too often the consequence of such pursuits; and the means necessary for its cure often debilitates the body, breaks down the

crasis of the blood, weakens the elastic fibres, and renders the body more liable to receive, and less able to resist, the sudden changes, which they are perpetually exposing themselves to.

There is also a practice, too common in large schools, and sometimes in private life, which has very bad effects on the constitution, which is Onanism. Parents, and guardians, and those who have the charge of youth about the time of puberty, cannot be too watchful to prevent it, or depict it in too hateful colours, in order to keep it from growing into a habit, and therefore become, like all other habits, difficult to remove.

Whether I am right in the above conjecture, it is not for me to determine; but I fear it is too true, and hope this hint will serve to remove some part of it.

There is also a pernicious custom of my fair country women, to consume great quantities of cosmetics to beautify the skin, and to remove pimples from the face, &c. These are all prepared with white lead, and other deleterious poisons; for they not only repel
the

the humours, but communicate their poisonous qualities to the lungs, and other tender parts of their constitutions. Dr. Huck Saunders told me, that two young ladies, sisters, died one after the other very quickly of consumptions, and the latter confessed to him, that she was sensible it was in consequence of a white lead wash, which they had used to whiten their skin.

To these occasional causes many more might be added ; but as it is not my design, to write a regular and compleat treatise on Consumptions, I shall content myself, with just stating the general appearances and effects of the disease, and such means as I have observed to be beneficial, or detrimental, to those who have had the disorder.

The generality of Consumptions, as I have before observed, are brought on by the neglecting colds in their early state, or by some other cause, which might have been as timely removed, had it been attended to; in this I include such persons as are said to be born of consumptive parents, or in whose family some have died of this disease. For although

I admit that many diseases are hereditary ; and that very distressing cases frequently happen, where this proves fatal to several, in one and the same family ; yet I cannot but think, that many of them might have been prevented, by attending to the rules stated in this, and the former part of this work.

In the beginning of these sheets, I have expressed myself, as strongly as I was able, of the numerous evils which arise for the want of care ; and although, I have my hopes, yet I have my fears, lest it should happen in this case, as it happens in general, that advice gives no new powers of resistance. Yet I cannot again forbear warning such persons as have coughs or other disorders in the lungs, to avoid if possible the fate of as amiable a young lady in my neighbourhood as ever the sun shone on ; the beauty of whose person could only be equalled by the goodness of her heart, and other endearments of mind ! a case which will not now admit of relief, although it most probably would have done so, had she taken the proper care in time, or had the disease been thought serious, when it was remediable. It worked, like a worm in the bud, to the unspeakable
distress

distress of one of the best parents, and other lamenting friends *.

It is perhaps worthy of remark, that most of our youth, of both sexes, who shew very extraordinary marks of genius early, are generally of very weak and delicate constitutions. Their natural eagerness to improve, and to excel, is equally pleasing to themselves, their parents, and their friends. In this case, the very numerous, and arduous studies, and other necessary qualifications for the completion of the charac-

* And, alas! she and several others are since numbered with the dust, who might have been now conspicuous ornaments to human nature, and a blessing to their friends and acquaintance. And what a heartfelt satisfaction would it have been to the Author of this work, could any of these precautions been seen and observed by any one of these amiable young persons. And all the trouble and anxiety, which he has had in sending this work to the world, is more than repaid, by having been the means of snatching, as it were, an amiable Lady from the grave, who was in this predicament, to the great comfort of a deserving and tender husband, and the unknown benefit which a mother is to a young family.

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ter of a bright genius, become too mighty for them to undergo with safety to their health. Nature, at this time of life, has many important offices to perform, which are impeded, by too great exertions of any kind; the solids become weakened, instead of accumulating strength; the smaller vessels are unfit for their several functions, for the want of that principle which nature employs in giving firmness, power, and exertion to the constitution, when it is weak from any cause, and particularly in such persons as out-grow their strength. The whole frame insensibly becomes diseased, and is sometimes in the greatest danger, before the patient, or the friends, suspect that medical assistance is necessary; and happy is it, when that assistance can reach the real cause, or do any permanent good. Therefore ye parents! who have children of this description, consider that shining abilities will make their own way, and will not be obscured by time, that the fruit will be ripe in due season, that bodily strength is necessary to great exertions of the mind, and that many of the choicest plants, and most beautiful flowers, require the minutest, as well as the most diligent care to bring them to mature strength and beauty,

beauty, and when arrived to that certain pitch, will bear many a nipping frost, and piercing cold, with impunity, which but a little before, would have deprived them of existence. The above cases often end in consumption, therefore great judgement is necessary to distinguish the true cause, and to apply proper means. And whoever is thus circumstanced, I cannot but urge them to guard against so distressing a situation in time.

The most frequent causes which occasion consumptions, are the small pox, measles, and several other species of eruptions repelled upon the lungs; customary evacuations having been stopped suddenly, such as issues, sweaty feet, the menses, &c. colds neglected, ill cured inflammation, spasmodic asthmas, scrofulous affections, tubercles, a spitting of blood from the lungs, a malformation of the bones of the chest, tight stays, and other causes which impede the free action of respiration. Absorption of matter from an abscess, women giving suck beyond their strength, or when emaciated by other profuse natural drains, the materials of several manufactures being drawn into the lungs in the act of respiration, such as barbers, meal-

mealmen, glass-grinders, stone-cutters, &c. &c. all tend to the same destructive end.

If the Consumption arise from violent colds, the symptoms may be gradually traced from the beginning; but, if from any of the above mentioned causes, it requires discernment to discover what its cause may be, that it may have its correspondent cure, as may be seen by the following case. A lady, without any previous known cause, or apparent neglect, seemed to be becoming consumptive, very able physicians had been frequently consulted, and every rational means were used for her cure, but without effect. One day I asked her, if she had any objection to an issue? she answered no, that she had had one all her life, till within a few months, when she was desired to dry it up, but now she began to recollect, she had never been well since. An issue was instantly made, and she very soon after got well, and still continues so; this is four years ago.

Persons, who are most subject to become consumptive, are of a delicate make, fair complexion and florid countenance, soft skin, long necks, narrow chests, prominent shoulders and hips.

hips sticking out like wings, with hollow temples, thick upper lips, and teeth of a milky whiteness. Many of the above description have constitutionally weak lungs, and the glands of the neck, lungs and bowels, are often obstructed, but these do not always produce mischief, till colds or some other cause, set them in a flame, which ends in suppuration, hectic fever, ulcers, and consumption.

Sometimes, where tubercles are the immediate cause, and have been made tender, from too great exercise, breathing bad air in hot crowded rooms, improper food, colds, &c. the beginnings are hardly perceivable, the cough not being very frequent at first, generally dry, or unaccompanied with much expectoration, and that, mostly, of a light frothy mucus, mixed with air, and mostly in a morning, and exciting vomiting; the patient feels an uneasiness about the chest, or a sense of pain on lying down, on one, or both sides, or under the breast bone; the breathing is also oppressed with the least quickened motion, and particularly so in hot rooms, or in moist weather; his

spirits

spirits are very irregular, being sometimes very lively or very sad, without any known reason; a red flush will appear upon one, or both cheeks, especially after meals, with a dryness and heat in the palms of the hands; a particular quickness in speaking may be observed, as well as an unnatural peevishness, which gains upon them, though before of the sweetest dispositions; all or most of these symptoms, may be seen by a careful observer many months before the patient thinks of complaining, or will acknowledge that he is ill, and then the cough perhaps may be found to grow more troublesome, and all he ails is attributed to it, and to appease which the family apothecary is sent for, and is desired to administer some soft balsamic, but if he talks of bleeding or regimen, which now is absolutely necessary, he is supposed to have some private views of his own to answer, or the patient replies that he is not bad enough to submit to that yet; when, God knows, this is the very time that he can be of real service. By a little care, and attention, the urgency of the cough becomes abated, the soreness of the chest is also lessened, and being tired of medicines, and constraint or confinement,

finement, the patient thinks the rest will wear off; thus half cured he immediately flies to the same round of dissipation, or exposure to colds, or other means which first brought it on, which does not fail to add to the already dangerous heap, which daily accumulates till it ends in the disease in question.

It is remarked by a very ingenious writer *, that it is very common for young ladies at boarding schools to contract colds, which the governess, from a good intention, neglects to inform the parents of, for fear of alarming them, while perhaps they are loaded with oily medicines, or other palling sweets, till danger comes on, and no means taken to remove the cause of the disorder. If this be true, which I am not inclined to dispute, I would recommend to their notice the example of a school-master, my next door neighbour †, who, when a child's complaints do not immediately give way to proper evacuations, (which however most childrens complaints do), sends for an emi-

* Dr. Reid.

† Mr. Alexander.

nent physician. This mode is seldom objected to by the parents, as it is not only the most safe for both master and scholar, but very often the cheapest; at least the parents are not so apt to suspect that medicines prescribed by a physician can be unnecessary.

After having given a full description of this disease, I hope my readers will excuse my frequent repetition of advice relative to taking care in time; it is from a conviction that it cannot be too often repeated or enforced, and not from a tautological use of the term, which it might otherwise appear to be; for I would rather that a critic should say I had used such a sentence too often, than that one person should receive any injury for the want of attending to it. Or if this be a blemish to the work, I hope it will be observed by every reader.—

I shall not say much with respect to medicine here, for the reasons before given; the principal things which I shall advise, will be more to regulate the conduct of patients, by applying

ing to their reason, matters within their comprehension, and such minutiae as physicians have not always time to direct, but which in my opinion are essentially necessary.

In the beginning of Consumptions, bleeding is a principal remedy, and in almost all constitutions, absolutely necessary, which must be repeated often, in small quantities, according to the urgency of the disease, and the strength of the patient.

If pain in the side, or under the breast bone, striking strait to the back bone, or oppression in breathing, or the cough be remarkably troublesome, or the expectoration streaked with blood, no medicine can be so useful as bleeding. Three or four ounces of blood may be safely taken from very weakly persons in the above cases; for these symptoms indicate inflammation; which will do more mischief, than the temporary inconvenience, which may arise from the weakness from bleeding.—Those who are not very weak, may be bled once in three, four, or ten days, if the pains, or other pressing evils remain. By these means

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the root of the disease is struck at, and its progress stopped.

At the same time that bleeding is necessary, the body must be kept open, with cooling neutral salts, such as sal polychrest, cream of tartar, soluble tartar, &c. or the following powder taken three, or four times a day, in thin barley water, or any other simple vehicle, will answer that purpose, and contribute to abate feverish heat, and inflammation.

Take of sal polychrest, sugar, and compound powder of gum tragacanth, of each a scruple, mix for one dose. This may be increased or diminished, in proportion to the effects; or a tea cupfull of the following pleasant apozem, may be taken three, or four times a day, for the above purposes.

Take of cream of tartar, and purified nitre, of each two drams, pearl barley half an ounce, honey two ounces.—Boil these gradually in three pints of water, till half is consumed, then strain off the clear for use; liquorice root may be added or not at pleasure; or where the honey does not agree, it may be omitted.

If the body be too much opened by the above recited medicines, the following draught may be used, to abate the fever, or inflammation, and should be taken two or three times a day, or oftener if needful.

Take of sugar, prepared chalk, and powder of gum arabic, of each half a dram, nitre purified, fifteen grains, pure water, or simple mint water, two ounces.

If the nitre should be found to occasion gripes, or prove too cold for the stomach, it may be lessened to four or five grains. The saline* mixture with or without the emetic tartar, may be taken for the like case, as in some constitutions it agrees best; a dram of of prepared chalk may be added to the mixture, and the emetic tartar omitted, where too many motions abound.

The inhaler should be used frequently with the same cautions as directed in the first part; this will lubricate the inflamed lungs, lessen the cough, and cause the mucus to be spit away with more ease and safety.

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Blifters

* See page, 54.

Blisters are most safe efficacious things in all complaints of the chest; it is not perhaps so much from the quantity of discharge which they draw away, as from a particular effect they have of inviting the inflammation from within outwardly, as is found in cases of sore throats, &c. I therefore advise small ones to be applied from time to time, to different parts to the chest, where the pain is, or upon the back, pit of the stomach, or sides; when one has been on the part affected a day or two let it be healed, and in a day or two after apply another to some other part, if wanted. This is less painful and more efficacious, than what is called a perpetual blister, for with that there are fresh flies applied and more trouble in general.

Issues between the shoulders, or between the ribs, in many desperate cases, I have known of singular advantage. Mr. Mudge, and others, lay great stress upon them; I have myself a good opinion of their use, and therefore recommend them.

As many very potent medicines might be prescribed, and perhaps applied improperly, I shall forbear mentioning any more, except for
violent

violent coughs, lest I should myself, be guilty of what I condemn in others; I shall therefore mention a few simple medicines, which will do no injury, and yet contain considerable virtue, in allaying fever in the lungs, and be at the same time lightly nutritious.

For this purpose I recommend decoctions, or infusions of liquorice root, figs and raisins, marsh mallow, dandelion, colts foot, comfrey, eryngo and mullein roots, either of these, sliced, and boiled in water until pretty much impregnated with the virtues of the plant: an ounce or two to a quart of water, and boiled to a pint, will be of sufficient strength; such as are very glutinous, as comfrey, less of the root will be sufficient; these, sweetened with honey, are most excellent healing pectorals. If the fever is much abated, or if the patient be weak, or in such a state as bark may be thought adviseable, for the bitter pectoral herbs, will generally be found more beneficial as they do not bind the chest. For this purpose, I recommend infusions of hoarhound, ground ivy, lungwort, maiden hair, elecapane, wild succory, oak lungs, &c. The juice of lemons, or oranges, or any other vegetable

acid, may be put in great plenty, in any of the drinks, if they agree; they cool, and abate fever, strengthen the stomach, and check night sweats, and in general are to be preferred to mineral acids.

Where there be much feverish heat, the patient has alternate fits of heat and cold, and and is sometimes worse one day than another, not unlike to an ague; this often leads the patient to ask for the bark, and the doctor to consent to its application, but it is rarely of real advantage; and oftener *produceth* mischief in this disease, although it is the boasted specific in the former.

Honey, for almost all disorders of the breast and lungs, is a most admirable remedy; Doctors Huxham, Arbuthnot, and many other great men, have very justly extolled it; and as it does not agree with all constitutions, I apprehend, that clarifying it, would make it do so; indeed, some care is necessary to procure it genuine, as it is a very common base practice for dealers in it, to adulterate it, and in this case no one knows what they eat. It may be used,

used, in common drinks, in medicine, and on bread instead of butter.

As the cough is a very troublesome symptom, during the progress of consumptive disorders, it may not be amiss to give a few directions, in addition to those I have already, to keep the violence of it from doing more mischief, while the cause is being removed, by the means just recited; and such others, as I shall have occasion to mention. The pectoral infusions, and decoctions, above advised, will generally answer the end very well, but as there are many cases, which they will not cure, I shall give a prescription for a good expectorant mixture to appease the cough, and procure rest, and if any thing more anodyne is wanted, one, or two, of the expectorating pills may be applied for that purpose.

Take of mucilage of quince seeds six ounces, oxymel of squills half an ounce, ipecacuanha wine one dram, liquid laudanum ten drops. Mix. If the ipecacuanha or the oxymel of squills occasion sickness, the whole or part may be omitted. Of which mixture a desert spoonful may be taken now and then to help the cough and to sheath the passage to the stomach; it

should be swallowed gradually, and will thereby be more efficacious... This may be called the Healing Expecterating Mixture. And the following, Anodyne Expecterating Pills :

Take of laudanum, conserve of roses of each five grains, dried squills in powder, ipecacuanha in powder, of each four grains. With any syrup, make these up with care into ten pills, one or two of which may be taken at night going to bed, when necessary. One caution is very necessary whenever opiates be given ; to take care that they do not make the patient costive, which they generally do ; the squills and ipecacuanha may probably prevent it ; but if they do not, use some of the opening medicines already advised.

When the lungs are loaded with tough phlegm, and unattended with pains in the side, or under the chest, or other symptoms of inflammation, from five grains to ten of ipecacuanha, may be given once or twice in a week, in a dish of tea, in the morning in bed, the patient should lye down after it ; in half an hour, more or less, it will cause a gentle effort to reach, and another dish or two of tea may be

be drank, and it will come off easy. I do not mean this as a regular puke, but only as a means to loosen the tough phlegm in the lungs, and by the little exertion of puking, to bring it away more expeditiously, and indeed more safe and pleasant, than by much coughing.

The most difficult task, I am now going to impose, which is a rigid adherence to a particular regimen, without which the choicest medicines lose their proper effects, and the best advice is thrown away. The disease cannot be cured by medicine without the diet corresponds, and of the two, I would say, rather neglect your medicine than your food, for one improper meal may do more mischief than any physic can be able to remove in a week.

In almost every case of consumption of the lungs, where recovery is much to be expected, (some few exceptions to the contrary being allowed) flesh meats, and every preparation of them, must be forbidden. Fish, as partaking in some degree of the same nature, is also improper. Calves feet jellies, nourishing soups, and such things as are considered by good housewives, and people in general, as necessary

necessary to recruit the strength of the sick, are much too rich and stimulating, and too heavy to digest properly. In their place, a diet consisting of fruits, vegetables, milk, and farinaceous substances, must be substituted. These will be quite sufficient to support the powers of life, while the nature of the food will furnish a mild soft nutriment to the body, free from irritating qualities, to aggravate the disease: the simplicity of which in time changes the whole mass of blood and juices, from a hot inflammatory state, to that of a pure healing kind, which renders the solids less susceptible of feverish heat.

For when the lungs, or the membranes leading to, or surrounding them, are become inflamed from colds, or any other cause, the blood which is prepared from eating any of the above-mentioned things, is of a very stimulating nature, and produces that kind of effect, as urine does when applied to the eyes, or salt water to a wound. Irritation causes spasm, and, by its effects, the blood is hurried through the lungs faster than it ought, to be properly strained, and purified, and mixed with air, (which is the natural office of the lungs to per-

perform) this also makes the pulse beat as quick again as it does in health, and creates a disturbance to the whole frame; the fever is thus kept up, and the constitution worn out, by the constant action, and re-action of nature, in attempting to remove it.

There is so much observance necessary in this matter, that even very mild food may produce bad chyle, and therefore an irritating property to the blood, animal fibres, nerves, or whatever else conveys the active principle of life or disease. I will not dispute with casuists, which of them does it; be it sufficient, that in my opinion, a very hearty meal taken of rice, or any other food equally innocent, may, by distending the stomach, lessen the free action of the heart and lungs, and by overloading the powers of digestion, and by filling the intestines with more chyle than can be properly prepared, may produce all the mischief we want to avoid.

Therefore, for the above reasons, I recommend, that consumptive persons should take only a little food at a time, but repeat it the oftener; they should not be so careful to attend

to regular meals, but study more what will remove the cause of the disease, than please the palate. An ingenious person, may make, or prepare, an almost endless variety of dishes, from the vast tribe of fruits, vegetables, &c. to satisfy the desires of a reasonable being, without meat; potatoes may be boiled, baked, roasted, and prepared in a variety of ways—Rice, sago, millet, salep, tapioka, pearl barley, &c. will make a numerous tribe of pleasing repasts. Salads, and ripe fruits; marmalades, and preserves; jellies, and preparations of them; with good light well baked bread, will furnish most delicious banquets in their turn. But of all the most generally useful and acceptable foods, milk claims the preference, and will admit of abundance of means to make it palatable and useful. Rennet whey, in consumptive cases, as well in many others, is beyond all praise, in my opinion; the living entirely upon rennet whey and a little white bread, and baked apples*, for about six weeks,

* Dr. Baynard says, that apples and milk saved his life twice in a most deplorable and confirmed phthisis. He gives many examples of the like kind. See Floyer, on cold bathing.

restored

restored to health the author of this, from a state the most dangerous; and he truly may say he was starved into life. A quart or three pints or more, should be drank daily.

Permit me here to remark, that much mischief is done by a common custom, of weakly persons going to drink the milk from the cow, (as it is termed) it is in general too rich for the stomach, and is apt to curdle, and especially when rum is mixed with it. A very common, but a very pernicious custom. Doctor Fothergill took great pains to abolish this very dangerous practice—In general milk is best for consumptive persons, and other valetudinarians, after it has been skimmed, or the grosser parts separated by cream of tartar, oranges, lemons, sorrel, raisins, or some other grateful acid. Buttermilk, asses, goats, or mares milk, may be taken in their natural state, being much lighter than that of cows. When milk occasion gripes, or is apt to run off by purging, it may be corrected by mixing one half, or a third of simple lime water with it, or with the same quantity of the following drink.

Take

Take of calcined, hartshorn prepared, gum arabic, conserve of roses, pearl barley; of each one ounce. Boil these in a quart of water till it is reduced to a pint and a half. This is a light astringent nutritious drink, and will sheath the bowels, and absorb any acid which may arise from the milk, or other causes. Some physicians have held opinions, that milk would be more salutary, were the cattle to be fed on particular herbs; but in mine, this purpose will be better answered, by making a strong infusion of the herbs you want, and mixing milk with it, as you will then certainly know the exact proportion of the herbs which you receive, otherwise not. Turnips baked in equal parts of milk and water, and the juice afterwards strained, and sweetened with sugar-candy, and drunk often, is very useful for coughs, as well as nourishment.

The following is a most excellent food, which may be made and taken at pleasure; it may receive a variety of flavours from rose water, orgeat, orange flower water, &c.

Take of rice, pearl barley, sago, and of candied eryngo root, of each one ounce, boil these

these in three quarts of water, till half is consumed, and towards the end put in a quart of milk, then let the whole boil a little and strain it for use; or those who choose, may eat it all as it is; those who are very weakly had better strain it; it will be as light as asses milk, and more nourishing, and not so liable to cause a purging. A quarter of a pint should be taken three or four times a day a little warm.

Lettuces, favoys, cauliflowers, artichokes, pease, beans, turnips, scorzenera, falfasy, asparagus, &c. &c. may be freely indulged in, and cooked in a variety of ways. It is very observable, that the history of medicine furnish us with a number of cases of persons, having recovered, after, both physicians and friends, had given them up to die. These persons have been restored by living entirely upon cucumbers, grapes, melons, water-creffes, milk and bread, or some one of them*. There may be a few cases
of

* I am surpris'd to find Dr. Simmons recommend animal food in consumptive cases. Dr. Reid a defender of vegetable diet gives too great latitude in
allowing

of consumption, or of consumption of a particular kind, where more generous nourishment must be allowed, but these are rare. But so long as appetite is more consulted than health, and so long as medical men continue to indulge it, rather than displease their patients, consumptions will be common, and will prove fatal. An indulgent physician, in these cases, is like a mild judge to a desperate criminal, who injures society by mistaken lenity

The

allowing some animal foods, and several species of fish in hectic fever arising from consumption. I have been teased into an admission of animal food, but always saw by the event the impropriety of it, the heat and restlessness were increased, and the feverish paroxysm lasted longer than when other food was taken. It is often allowed I very well know under the idea, that a consumption is but seldom cured, and that it is right to indulge the patient the little time they have to live. Such reasoning, our limited knowledge of the causes and events of diseases, and the uncertain state of the inside of the patient, absolutely forbids. My practice encourages me to judge differently, to begin, when many others have done, and often with the desired success.

The drinks should be rennet whey, the common emulsion, Bristol water, Seltzer water, or any light pure cooling drinks; they may be acidulated with oranges, lemons, apples, currants, tamarinds, or other fruits: or sweetened with honey, capillaire, orgeat, &c. But wines, beer, ales, and all spirituous, or fermented liquors, should be considered as improper; they promote fever, and inflammation, excite coughing, and encrease the disease. Coffee, or tea, cocoa, &c. may be drunk, provided they be not taken too hot, or in too large a quantity at a time, and with one third of skimmed milk mixed with them. — Butter, cheese, and cream, are too rich, irritating and gross to be allowed with propriety.

“ I have frequently (says Sir William Fordyce*) seen the necessity of quitting London
 “ air, to temper heat, and compose the hurry
 “ of the circulation where the hectic fever
 “ had been continued for five or six weeks, in
 “ despite of the best medicated regimen; and
 “ oftener than once, I have known the patient
 H “ return

* See Sir William Fordyce, on the hectic fever.

“ return to town in twenty four hours as free
 “ from both as if neither had formerly existed.
 “ I have likewise seen the most stubborn infi-
 “ dels on this subject reduced to the necessity
 “ of submitting to a diet of whey, milk por-
 “ ridge, water gruel, fruits, or farinaceous
 “ foods, when, in compensation for a penance
 “ which they thought so dreadful, they received
 “ back their spirits, their lungs, and their con-
 “ stitutions; and I have known many, who had
 “ been given over by their anxious friends on
 “ account of hectic complaints, recovered, by
 “ so severe a regimen, as only tended to com-
 “ plete the triumph of their physicians.”

Next to proper food, drinks, and medicines,
 pure air is of the greatest importance to the re-
 covery of consumptive persons; and we are well
 assured that it is not sufficiently attended to by
 the faculty, or we should not see so many per-
 sons in the last stage of the disorder, before they
 are sent out of London, and other large towns.

It is not infrequent for persons of a slender
 delicate make, with thin skins, and of delicate
 system of blood vessels, to be subject to lose
 blood from the lungs, or what is called, spitt-
 ing

ing of blood. This at all times is an alarming circumstance, because it may prove instantly fatal, or end in consumption.

In women, it is not so universally dangerous, as in men, for many reasons which nature takes in providing against particular exigencies in their constitutions. It is of moment to know, whether the blood comes from the lungs, the stomach, or the passages to them. I have seen some of the faculty puzzled to distinguish which, therefore, it is always right immediately to call in the best assistance. What I shall say on this head is chiefly by way of prevention, after the first alarm is over. Had I not seen many persons fall very quickly into declines, for the want of having used such precautions, I should have thought this part totally unnecessary. It is the duty of the medical attendants to seriously impress this on the minds of their patients; but it is too often neglected; if directions are given, it is too often in a desultory way, and when the doctor is gone the patient thinks no more of them.

I have been told by some of the faculty that it was for fear of alarming their patients, and

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making

making them low, that they had not enforced the regimen, &c. more strongly; but they should have considered that fear is one of our best instruments to produce observance, for all are not to be governed by reason. It is too true that eight persons out of ten who spit blood, die consumptive, in the course of two or three years; and I believe many of them for the want of being attentive to such necessary rules.

The medical means to be taken in spittings of blood, are frequent small bleedings, so as to prevent a fullness in the vessels, as well as to act by revulsion as it is called, that the ruptured parts may never be too much pressed with blood, and that they may completely heal, and become strong, that others may not happen.

The cooling neutral salts, as sal polychrest, nitre, and elixir of vitriol, tincture of roses, &c. are to be liberally taken, so as to keep the body open, to empty the vessels, and to allay all preternatural heat in the constitution. The following electary Dr. Huck Saunders, recommended to me as the best general medicine he had found for this purpose.

Take

Take of conserve of roses three ounces, spermaceti powdered fine, nitre purified, and finely powdered, of each six drachms, mix for an electary, of which a patient should take the quantity of a large nutmeg, three, or four times a day, and to drink freely of barley water afterwards. If the nitre should be found too cold for any delicate bowels, the quantity may be lessened, and where there be a cough, a little syrup of white poppies may be added at bedtime, or in the electary. I think a great deal depends upon medicine, as well as other things, but no man should depend upon his own judgment in this case, so I shall say no more on that head.

What is most in the patients own power and discretion, is, the regulation of his diet, exercise, and passions of the mind, and as the intention of these cautions are to prevent mischief after the bleeding is stopped, as well as while it is on, he will shew his wisdom most, who most observes them, for it is necessary to do it for a considerable time after, and to return warily, and gradually, to his usual habits of living.

It often happens that the patient thinks himself too soon well; a week or two after the bleeding is stopped, his spirits feel good, his strength and appetite do not fail him, and he thinks it a work of supererogation, to restrain himself from doing whatever offers itself in his business or pleasure; yet in general if he is examined closely at this time, he will be found to have an internal sense of tightness across the chest, a sort of obstruction and tenderness in the lungs in fetching a deep inspiration, and rather short breathed, on going up hill; but these are so slight as not to draw his attention except he is asked about them, and even if he had discovered them, they are all attributed to weakness: and a little good living is thought, will bring all about again soon. Thus he will go on till the bleeding is brought on again, or till the ruptured vessels become inflamed, or an ulcer succeeds, and death finishes the dreadful scene. A gentleman applied to me very lately after having spit blood, for which some good woman had recommended him to take Friar's Balsam to heal the vessels; which had nearly done more mischief in a few days, than my art could repair in as many weeks. Let
me

me again advise good women from thus innocently as it is thought, destroying their neighbours.

The diet should be very sparingly used, that is, a little at a time, and of a mild cooling nature, it should consist of milk, butter-milk, fruit, vegetables, and farinaceous substances. Skimmed milk, water, lemonade and many other simple grateful liquids might be converted into ice, and have wonderful effects in allaying heat in the lungs, and be a powerful means to stop bleeding from them, and the stomach.

The drinks should be rennet whey, toast and water, or pure water made grateful with any sort of fruit or preparations from them. Wine, or spirits, or beer, or any fermented liquors, are so many poisons, from their natural qualities and effects in heating and stimulating the system of blood vessels.

The exercise should be very gentle and not long continued so as to produce heat or fatigue.

Any violent passions of the mind should be more than ordinarily watched; gusts of passion should be particularly restrained. Venereal pleasures are very hurtful.

A man who is thus unhappily circumstanced, must call forth his own reason; for he may hurt himself a thousand different ways which cannot be enumerated here.

The patient should lie moderately cool in bed, and should carefully avoid extremes of heat and cold, particularly the play houses, heated rooms, or where much company resorts. Dancing, speaking loud, singing, or blowing wind instruments, are also bad.

The air which they breathe should be pure and soft, and not open to the east, or north east, nor in a bottom, but of a sufficient ventilation, the air of large towns is particularly irritating in this state of the complaint, as well as in all others of a consumptive tendency.

An almost universal evil prevails of the faculty keeping patients with diseased lungs, too long
in

in large populous towns in bad air; and when they can do no more for them, send them into the country to try at last what ought to have been done almost the first. The air of large towns is very bad for consumptive complaints, and the places where patients are sent to, near London, I fear have not all the advantages which might be wished. Islington, is too populous and too near London to be eligible. Brompton, has the like disadvantages, only it is more south. The villages in the vicinity of the river, and those in the midst of, or near to, large nurseries, abound with bad air arising from putrid vegetables, or stagnant waters. It is unpleasant to think that the convenience of being near to the best London medical advice, should oblige the sick to want so necessary a means of recovery, as pure air. The situation must be suited to the nature of the disease and the time of year, as it would be absurd to send a very weakly person in the middle of winter to the summit of Hampstead, or Highgate hills. There are situations to the south and south west of these places, which are sheltered from the colder winds, and enjoy the advantages of pure air and sufficient ventilation. But I have known persons recover
in

in winter at Hampstead, who have tried other places in vain. The faculty have in general a mistaken idea of the air of this neighbourhood, saying it is too sharp; indeed so it is on the summit in winter, but where there is a hill, there is a dale, and the hill must naturally defend the dale from cold.

The following compliment was paid to Hampstead very deservedly by Dr. John Armstrong, who knew it well, in his elegant poem on the *art of preserving of health*.

But if the busy town,
Attract thee still to toil for power or gold,
Sweetly thou mayst thy vacant hours possess
In Hampstead, courted by the western wind.

Much might be said on the variety of situations which would be injurious or salutary to consumptive persons, but would take more time than I can here admit; such a work, executed with ability and candour, in my opinion, would be a valuable acquisition to the public*.

The

* My mind has often suggested to me, and very sure I am, that a building or Hospital might be so constructed

The next thing which I have to recommend, is a proper regulation of exercise. There is nothing

fructed as to supply almost all the advantages of a foreign climate for diseases of the lungs.

Both the rich and poor might be preserved during the colder months of our winters. Here diet, air, exercise &c. might be so regulated by a physician and proper persons upon the spot suitable to each case; here my worthy ingenious friend Dr. A Fothergill's * hint, of using *dephlogistigated air*, or air any otherwise modified, as to be made soft, pure, and salubrious, may be carried into full effect, and at much less expence and danger and more ease to friends and relations, than seeing so many of our amiable youths go upon a forlorn hope which so seldom succeeds (if not taken very early in the disease, as indeed it rarely is soon enough.)

It perhaps may be said that physicians have hitherto considered an hospital or building as an improper place for consumptive persons, and therefore have rejected them in general from their hospitals; and it may be asked why I should attempt what has been so long the contrary practice of the heads of the profession? to which I reply that a building such as I conceive to be useful in the

* See hints, to restore suspended animation by Dr. A. Fothergill, F. R. S.

thing more injurious to consumptive persons than riding on horse-back at improper times, or in an improper degree, for although it stands recommended by the highest authorities, both ancient and modern, yet it has not been sufficiently limited to prove of benefit, without very frequently being injurious. If there be fever, spitting of blood, violent coughs, attended with pains in the chest or side, or a very quick pulse, much exercise of any kind is improper. But where these do not prevail, gentle riding, encreased by degrees, as the constitution can bear, by giving a general and equal exercise to the whole frame, prove salutary and agreeable, if taken properly. For

these cases, should be very different from those intended for other purposes. The rooms may be so constructed as to receive nothing but pure warm air properly strained of all the cold irritating particles, the regimen and every other minutiae could be so regulated, as the patient could not easily do amiss. The cure of consumptions, depend greatly on such observances, the place would also be chosen naturally, in a warm, dry and well ventilated situation, and not in the midst of smoke, and other impurities arising from populous cities, and towns.

the

the times of riding, require attention to direct judiciously; the season of the year, temperature of the climate, and the situation, must be all well considered.

The common custom in the country of ordering consumptive persons to follow the plough, is like other means capable of benefit, and injury, according as it is used. Some physicians have held opinions, that a peculiar virtue arose out of the fresh turned ground very salutary for diseased lungs; perhaps there may; but for a weakly person with a fever upon him, to walk over the land as fast as it is ploughed, (and in general this is supposed to be necessary), is more apt to encrease the fever and injure the patient than to assist him; for the same reasons, that riding at improper times, and in an improper manner proves mischievous.

The benefit of the cooling particles which may chance to be drawn from the earth by the power of the sun, or absorbed by the body of the patient, will be better obtained by walking, or riding gently through the furrows some little time after, than by being heated

heated and fatigued, directly walking by the horses.

To ride very early in the morning, before the sun has warmed the air, and dispersed the dew, or fog, is very injurious, and likely to encrease the cough; or if the patient be recovering, may bring on a return of the complaint. It is equally improper to ride in the middle of a hot day, or to be exposed to the fervid heat of the sun; or to be out late in the evening, when the dews are falling, for the lungs are susceptible of the least impropriety in these respects, and those who know the hazard, will do well not to venture. The riding in a coach or chariot, sailing in a boat, or any other easy exercise in the open air is preferable to walking, or any other that occasions much fatigue.

The minds of consumptive persons should be kept as tranquil as possible; as great anxiety after business, pleasure, or study, or any other thing, which has a tendency to ruffle the nerves or disorder the frame is bad; but such light things as will amuse the mind, and pass the time away chearfully, will contribute to the cure. Nor need I say that anger, or any violent passion,

passion, proves extremely injurious to consumptive persons. Dancing, shouting, reading, or talking loud, singing, or blowing wind instruments, or any means which call for much exertion of the lungs, is improper. The patient should keep the body in as easy an upright posture as possible, therefore should be careful avoid leaning on the chest: and to let the blood have a free equal circulation by refraining from tight garters, tight stays, &c. It frequently happens, that friends and relations out of humanity and affection, attend upon consumptive and other sick persons; and either sleep with them in the same bed, or are constantly about their persons, and imbibe the effluvia, which necessarily escapes from their lungs, and their bodies, and especially if they sweat much; this contaminates the surrounding air, and when there is not a sufficient ventilation, must be drawn into the lungs, both by the patient and the attendants. Let me therefore entreat such to attend to the proper ventilation of the room, and for the attendant to go several times a day into the free air. Those who have tender lungs, or are of a delicate make, should be very cautious not to sleep with the sick, and if possible not in the same room;
for

for it is the bad quality of the air which irritates their tender lungs, and so gives rise to a cough, &c. and not *Specific Contagion*, which is thought by foreigners, and asserted by some of our own countrymen. The frequent changing the linen and blankets about a sick person, has many advantages, and for a patient to remove from one room to another, (where it be convenient), greatly contribute to a cure. It is bad for a patient to lie in bed long in a morning, especially when they have profuse sweats, for it relaxes the body, and weakens them much, and the skin absorbs the fetid sweats, which nature had just cast out of the constitution as unwholesome, which adds to the disease.

The patient should sleep on a matrafs, and not have too many cloaths on the bed, and as the sweats come on to lessen them. I have known the sick better from getting up when the sweats began to come on. The early going to bed, and early rising is highly necessary.

It would be much happier if patients could be brought to consider how much a speedy and permanent recovery depends upon the observance

tervance of such trifling circumstances, and how little a matter deranges the frame of a valetudinarian ! which, by being neglected time after time, it becomes very difficult to establish a fund of good health again ; nor can I better conclude than by the following lines from that excellent poem just quoted.

————— While the vital fire
 Burns feebly, heap not the green fuel on ;
 But prudently foment the wand'ring spark
 With what the soonest feels its kindred touch :
 Be frugal even of that, a little give
 At first ; that kindled add a little more ;
 Till, by deliberate nourishing, the flame
 Revived, with all its wonted vigour glows.



OBSERVATIONS

ON THE

HOOPING COUGH.

THE Hooping Cough, is a disease which very few escape. It is contagious, and communicated by the breath. There is something in the air, or in the bodies of persons, which disposes them more at one time, than at another to receive the infection. This year it has been very rife around my neighbourhood; and every where else, as far as my inquiries have extended; even as far as Scotland.

In some patients it was mild, in others, so severe, as to threaten consumption. I have
seen

seen some mischief arise from the want of timely care, and have given here the result of my observations and success, which I hope will prove of some utility; the means are not new to medical men, but may be so to those, for whom I write.

Women, and nurses frequently attempt to cure this disease, and sometimes in the milder stages of it, with success; but as practitioners do not always discriminate between the original disease, and the effects arising from the violence of it, no wonder that the women should fail; and by mistake do mischief.

The complaint is certainly spasmodic when in a simple state; but is often complicated with a fever, and inflammation of the chest and lungs, which require a different mode of treatment. Hence, bleeding, emetics, the bark, hemlock, cupmoss, woodlice, and many other medicines applied with judgement, succeed in some cases, and do injury when ignorantly, and promiscuously given in others.

Puking, with small doses of emetic tartar, from time to time, is recommended by the late

Dr.

Dr. Fothergill, and others: and this is a very general practice, but a practice may be too general, and now and then do harm. The extract of hemlock, has been highly spoken of by Dr. Butter, but my experience, leads me to have no dependence upon it, though it may be good in some cases. Bark and castor for the same reasons, cannot be called specifics in this disease.

As I have had some hundreds of children, and grown persons under my care, this summer (rich and poor) in the Hooping Cough, and have not lost one by it; I shall give my general mode of treatment, as far as particular cases will admit it to be so called.

The time which the complaint takes, coming on, and going off, is various; sometimes six weeks and less, and sometimes a much longer period; as the sick are liable to relapse from colds and other causes.

I begin, by giving a couple of purges, with sal polychrest, and rhubarb, and if worms be suspected, I add a grain of calomel to each dose.

For a child of two years old, the following will generally be a proper dose.

Take of sal Polychrest, fifteen grains; rhubarb in powder, seven grains; calomel prepared one grain. Mix.

Younger children may take magnesia, manna, &c. with, or without half a grain of calomel, if it be necessary. In all complaints in children, cleansing the bowels greatly forwards the cure.

After two or three purges have been given, I puke them twice or thrice in a week, or oftener if need be, especially if children; grown persons do not bear puking so often, nor so well as children.

The following is a pleasant, and efficacious mixture to puke children with.

Take of emetic tartar, four grains; pure water, four ounces; sugar, two drams. Mix. From one to two, or three tea spoonfuls, may be given to a child of a year old, early in the morning, or about noon, and repeat it every quarter

quarter of an hour, till it puke freely. It would do good to give them some tea, or water, to drink before the medicine is given, as they will not drink, when they are sick; and they will puke easier for it. By this means the glands of the throat, stomach, and parts adjacent, will be emptied and cleansed.

When the fits of coughing, are very violent, and disturb their rest, from a half a drop of, Laudanum, to three or four; or a tea spoonful of syrup of white poppies, may be given to appease it, either in water, or in other drinks, or in some of the following mixture.

Take of Syrup of red poppies, oil of sweet almonds, of each six drams, antimonial wine, one dram, of oil of amber, ten drops. Mix. A tea spoonful of this, and one drop of laudanum, may be given to a child of a year old, at bed time; to older children rather more, so as to produce the desired effect. A tea spoonful without the opiate may be given three or four times in a day. This is a simple balsamic medicine, and a good antispasmodic, and alleviates the little fever which comes on towards evening. It will be right to begin always, with

a small quantity of the opiate, least it should not agree with some constitutions.

If the fever be constant, and the patient hot, and thirsty, encourage him to drink freely of saline mixture*, without the emetic tartar; or four drops of antimonial wine, and ten of sweet spirit of nitre taken in any liquid, three or four times a day, have good effects in reducing the fever.

When the breathing is very difficult, and the violence of the cough occasion a blackness in the face, and neck, with symptoms of suffocation, it is necessary to take away a little blood, either from the arm, or from some other part. I have known an ounce or two of blood from the nose, give a critical turn to the disease. The blood being detained in the lungs, and the great vessels leading to the head, when the bleeding is long suspended by coughing, makes it necessary to bleed, in proportion to the age and strength of the patient,

See page 54.

and

and to repeat it, if the difficulty be not removed.

A Blister in the above situation, applied to the pit of the stomach, or, if that be objected to, between the shoulders, from time to time, will do service. A Plaster of equal parts of mithridate, and oil of mace, will also contribute to appease the violence of it, if applied to the pit of the stomach, when there is no blister there.

All the above means, and many others are necessary sometimes, to lessen the force of the disorder, and prevent its proving immediately fatal.

Others I shall now speak of, to strengthen the constitution, and make it bear up against, and resist the destructive effects, which the fever, and other violent parts of the disease do it; that a consumptive, or some other evil may not be the consequence.

As I think I have seen good effects from effluvias; I have often contrived that the sick
should

should be surrounded with the smell of *assa-fetida*, garlic, oil of amber, or camphor, either by causing some one of them to be worn in a bag, or by dissolving them in some kind of spirit, as rum, &c. and rubbed down the back, and about the chest twice a day. But I give the preference to two drams of camphor dissolved in an ounce of oil of sweet almonds, for the above purpose.

This method, I continue, for about a fortnight or three weeks, more or less, as the cases require; and if the cough continue, and there be no material fever, I endeavour to give the bark in as large doses as I can. Children will sometimes take it in milk, or treacle; half a dram, three times a day, for a child of two years old, will soon cure the disease in this stage of it; from five to ten grains of saffron, or castor joined with it, will help the effects of the bark.

Where it cannot be given by the mouth, a strong decoction of the bark, with half a dram of *assafetida* dissolved in it, and given by way of clyster, will often succeed. I have
known

known a cure, by quilting three or four ounces of the powder of bark, between two pieces of old linen, and worn round the body night and day, for a time. In some cases, bark boiled in milk, and used as a bath, where we have been anxious for its peculiar virtues has proved beneficial. For children at the breast, the nurses may take the bark, and some virtue will be conveyed that way. Adult persons are soon relieved by large doses of bark, when the inflammatory symptoms are gone. Castor and opiates, may be occasionally conjoined.

Cupmoss, is a common remedy in the hands of old women, and does service very often; its virtues are pretty similar to the bark, only weaker.

Woodlice infused in wine, I have known of service, but the juice of them, when bruised and strained, is much better; wine in any large quantities being not good for children.

Musk

Musk is a pleasanter remedy than any I have yet mentioned, and perhaps not at all inferior to any, as an antispasmodick; where there be much convulsion with the cough, from ten grains to a scruple, or half a dram ground with sugar, should be given three or four times a day, if you expect real benefit from it. Given in large doses it is a powerful drug; but its dearness makes it not be used so often, or in such large doses as it ought, and only those of large fortunes can afford to pay for it.

I hardly know how to seperate what may be necessary to all, from that which might be only useful to some particular persons. Some fond mother may receive a hint from some of these medicines, and suggest the application of them to her medical attendant; or it may teach her how, to go hand in hand with him, and not to let a favorite nurse mislead her, to do improper things.

But I trust no person can do mischief by literally following what I advise, provided
they

they have a previous knowledge of the state of the disease, *and without which, whatever the givers of any Medicine may think*, they may depend upon it, that it is highly sinful, as well as dangerous. The intention in these cases, justify the deed but very seldom!

The diet for such as have the disease unattended by inflammation, should consist of milk porridge, weak broth, fruits, rice, &c. and in some cases animal food, fish, &c. may be allowed; but where the fever, or cough, is very violent, and continues any length of time, meat should not be permitted; but the diet in every respect should be as strictly managed, as is directed in consumptions; for there is great danger of producing one.

All the bad cases which I have seen, have had the same symptoms as those have, who are consumptive from other causes, only that they whoop in their coughing; and this whoop often remains from weakness of particular organs, or from the power of habit on those parts,

parts, after the infection is gone: and they have all been cured by the same means as I have directed for consumptions.

Pure air is of the greatest importance in the cure of the Hooping Cough. It is necessary in all its stages; but absolutely so, where it is very bad, and has laid great hold on the constitution. I have sometimes thought that changing the air from place to place has proved of advantage; but in general, where the diet and other things are conducted right, they have done very well in my neighbourhood. The soil is chiefly gravel, and sand mixed with a good loom, and free from stagnant waters, and corrupting vegetables, and near enough to town to have all its conveniencies, yet out of the influence of the smoke arising from it.

The air of large towns, and populous places, always aggravates the Hooping Cough, and however proper it may be for the sick, to stay in them, till the very dangerous part is over; it is really necessary for
him

him to go, some where into the country afterwards, to remove the consequences of the disease, to prevent a relapse, or a consumption, which too often succeeds, this tedious, and frequently fatal complaint.

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O B S E R V A T I O N S

O N T H E

A S T H M A.

ASTHMA like the gout is rarely cured. It may be ranked as one of those diseases which bring an opprobrium on the *art of medicine*. But while mankind are lamenting the inefficacy of *physic*, they forget how much the cause, as well as, the cure of disease depend upon *themselves*.

When we look round on those who are troubled with Asthma, we find that many of them have been either great eaters or drinkers or both ; and though there may be many exceptions, it is not less true, that grossness of living is too often found to produce it. Num-

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bers have it heriditarily ; many from particles arising from materials made use of in trades, and manufactures, and from various other causes.

Neglect of colds is a frequent cause of Asthma. But from whatever cause it may originate, it is rarely attended to, till necessity obliges the sick to apply for relief ; and often from the lateness of the application in vain. For from a neglected cold, only, for a little while, the lungs may receive such an impresson as can never be removed : and an Asthma, or consumption ; may be the consequence.

There are several species of Asthma, some are dry and spasmodick, attended with great difficulty in breathing ; and the sick has the sensation of being suffocated ; this kind is not always accompanied with a cough, but often with a train of nervous symptoms. Others are of the humid kind, as they are called, being attended with a constant expectoration of phlegm, together with difficulty of breathing, cough, and sense of suffocation.

In all cases of Asthma, the blood is impeded in its circulation through the lungs, either by spasm, phlegm, or other offending matter acting upon the sensible parts.

Where there be a sense of suffocation, much difficulty in breathing, great heat in the chest, a full pulse, and flushings in the face; bleeding must be the first remedy. The quantity taken away must depend upon the violence of the symptoms. It is said by writers, that we must not bleed in the spasmodick Asthma; but if the above symptoms come on, bleeding is a superior remedy to any I know. In the above distressing state, if something be not done soon to move the springs of life; this disease will soon prove fatal. Bleeding is therefore proper, except some evident weakness forbid it. But to repeat it, will require much consideration.

After bleeding, unload the lungs of the phlegm, or whatever else may obstruct them: this should be done by emetics, which by stimulating the stomach, agitate the surrounding parts, and empty them of the offending matter.

K 2

A blister

A blister should be put on the pit of the stomach, or between the shoulders, to rouse the smaller vessels, and to draw off, or prevent inflammation. Oxymel of squills, milk of ammoniacum, and volatile alkaline salts, &c. contribute to take off spasm, and encourage expectoration.

In many cases opiates are proper, but like the above medicines must be administered by judges. Great attention should be paid that the body be kept open; and if not, a clyster of a pint of water-gruel, two ounces of honey or sugar, and a spoonful of common salt, and sweet oil may be used. Those who are accustomed to be costive, should have occasional recourse to some of the opening remedies recommended, where I treat of the cure of colds. There is great consent between the bowels and the lungs; if the bowels be loaded, the lungs always suffer.

Persons subject to have fits of Asthma, should never be without something by the bedside, to appease the violence of it, as it frequently happens in the night. Sometimes penny-royal water, or rue water distilled, or made into tea,

tea, and strongly impregnated with the virtue of the plants, do service. A tea spoonful of sal volatile, or hartshorn in water, will relieve sometimes. A cup of mustard whey may also succeed.

From the experience which I have had of the following medicine, I would advise no Asthmatic person to be without it by the side of their bed. It will relieve the urgency of the symptoms, till other advice can be had.

Take of gum ammoniacum, gum sagapenum, of each a dram and a half, dissolve them in seven ounces of water, or penny-royal water, by beating them in a marble mortar; then add of oxymel of squills, one ounce, antimonial wine, two drams, elixir paregoricum, three drams. Mix. From two to four table spoonfuls of this mixture, may be taken every two, four, or six hours, according as the complaint is more or less severe.

To enumerate all the varieties of Asthma, with the particular treatment necessary for each, would carry me beyond my present design. I give a prescription for a medicine, which

which will relieve in many cases, but may not suit in all. For in violent fits of Asthma, medical aid is necessary, and the proficient in the art, are now and then, obliged to change the method of cure in the course of a few hours. Therefore persons not of the faculty, should not attempt to administer medicine, except on emergency, where other advice is not to be had. Neither will any person receive much good perhaps, by taking medicines of his own prescribing.

Many persons who have habitual Asthma, and are accustomed to expectorate a great deal of phlegm, feel no great inconvenience, except it become checked by the effects of cold and moisture, the fumes of metals, &c.

A cold easterly wind, damp air, wet feet &c. will in the course of a few hours cause such a stoppage of the usual expectoration, or such a degree of spasm as to reduce the patient even in that time to a state of danger. In this case put the feet into warm water, with the precautions before directed, let the patient have a simple glyster, give warm drinks, such as wine whey, (or vinegar whey, except where the

the gout is in the habit) or water gruel sweetened with honey. Put the patient into a warm bed and try to produce a perspiration.

Bleeding perhaps may be necessary, as well as other means, but judges must adopt them. A little of the asthmatic mixture may be given here with advantage.

Some persons, during the winter season, are very much troubled with difficult breathing, and are not well, except they discharge a good deal of phlegm, night and morning, or perhaps during the whole day. Such persons will find relief from the following pills.

Take of gum ammoniacum, gum sagapenum, balsam of tolu, flowers of Benzoin, of each one dram, dried squills in powder, powdered ginger, and venetian soap, of each half a dram, with a sufficient quantity of syrup of balsam, make fifty pills; two, three, or four of which may be taken at bed time, or night and morning when necessary.

Frequent vomiting with small doses of ipecacuanha, is recommended by Dr. Akenfide,

and other eminent physicians, for asthmatic persons. It is a practice I have pursued with advantage. From three, to five grains of ipecacuanha powder, may be given two, three, or four times a week, to empty the glands of the phlegm, and of whatever else may impede the breathing.

Dr. Cheyne was very fond of *Æthiops mineral*, as well for the sulphur it contains, as the quicksilver; both of which he strongly recommended in Asthma. Dr. Dover, deserves the thanks of society, for the prescription of his sweating powder; and some attention for his advising the use of quicksilver, in the cure of Asthma. He has published the cases of many respectable persons, in his *Physicians Last Legacy*, wherein quicksilver proved remarkably useful. And although it may not be so generally efficacious as he wished the world to think, there is abundant reason to believe, that it may be given to asthmatic persons very often with advantage.

Many patients have taken it with success, within my own knowledge, when all other means had been tried in vain.

In

In asthmas of the humid kind, and where the common means do not give the desired relief, I would advise a trial of an ounce of quicksilver every morning, for some continuance.

I know not how it cures, but I am contented with my ignorance, if it will produce the expected relief. Dr. Dover hurt the medicine, by ordering it without sufficient limitation. And many persons are too apt to think, that if a medicine will not cure every thing, that it is good for nothing. A medicine of much power, or of much virtue, will never submit, to fashion or caprice, nor be always successful by promiscuous application.

To relieve Asthma, and to prevent frequent returns of the fits, requires a consideration of the several causes which have influence on the patients constitution. It is proper to know, how far other diseases may contribute to produce it. The frequent complications of gout, scurvy rheumatism, dropsy, &c. make it necessary to attend to this, if we would adapt a judicious method of cure.

How

How often has Asthma, and many other chronic complaints, originating from suppressed scurvy, gout, and some other latent evil in the constitution, been relieved by medicines given for those complaints !

The causes of diseases are sometimes very obscure. No philosopher has yet been able to say, what are the component parts of a mite, or an atom of matter ; neither has any physician been able to say, in what manner diseases are caused in the human body ; or what the nature of those qualities are which produce them ; nor is it always known how a simple medicine can work the wonderful benefit which one sees sometimes arising from it.

Let not the valetudinarian be dismayed, though his complaints do not give way, so soon as he might wish, or expect ; nature may have many valuable stores yet untried, which may be called forth by cautious experiment. Let him chuse a prudent careful and attentive man for his medical guide, live strictly temperate himself, and time, and patience together,

ther, with other means, may remove many stubborn chronic disorders.

In asthmatic cases, the advantages which may be derived from simples, are very great, decoctions, or infusions of the following plants, according, as they are, more or less powerful, or the disease, more or less violent, may be applied. They are all in a degree bitter, aromatic, and stimulating; some more than others.

They have a tendency to brace the stomach, correct viscid juices, to rouse the remoter vessels to action, and some other powers over the human frame, in particular complaints, which are to me inexplicable, where there is much fever, they are seldom proper; but in weakness of habit, in laxity of fibres, and in cold phlegmatic constitutions, they are very useful. These are hoare-hound, Paul's betony, carduus benedictus, elecampane, ground-ivy, garlic, wake-robin, buck-bean, mustard, soapwort, wild camomile, Iris, and many others. These are not new, but not so often used as they should be; they only want to be adapted to each particular case. Garlic infused in any spirit,

spirit, or in water, in moist asthmas, and drop-sical complaints will give great relief. Dr. Lind says, it is the best preservative against the effects of cold and moisture in northern climates; and I think it would be an excellent preventative against the ague, and other complaints in many of our marshy, and fenny counties, and the poor may have it in plenty on account of its cheapness.

The asthmatic patient will receive much benefit from some artificial drain. A large issue between the shoulders, or on one, or both thighs would be useful, or at least mitigating.

Half an ounce of mustard-seed just bruised, and taken in a glass of water, in the morning early for the humid kind of Asthma, is very often beneficial.

From a tea spoonful, to three or more, of Æther, may be taken in a pint of barley water, for very obstinate spasmodic Asthma twice a day, with much benefit. Begin with a small quantity first, and dilute it largely.

The

The juice of millepedes, or woodlice, have been celebrated for obstructions of the bowels, and not without reason. It is a safe and easy remedy, but it requires to be taken in large doses, and for some time, as do most other things in this disease, to produce any permanent effect.

Four large spoonfuls of the juice should be taken twice, or thrice a day; which is prepared by bruising the woodlice alive in a mortar, and then strain the juice through a muslin rag.

The diet of asthmatic persons should always be of light and easy digestion, and nutritious. The tender animal foods, fish, &c. may be taken where there is no fever. But pork, bacon, salted meats, and the like should be avoided. People are not aware how much these clog, and fill the constitution with coarse juices, and how much additional labour the stomach, and the lungs are obliged to undergo, after a hearty meal of this sort of food. An asthmatic person should never eat what one would call a hearty meal, or a bellyful, for the above reasons: by greatly distending the
stomach,

stomach, the lungs become more confined, and receive injury. They had better eat four times a day, than twice.

New baked bread, rich pye crust, boiled flower puddings, hot roles and butter, buttered toast, muffins, &c. all tend to disorder the stomach, produce bad juices, which produce phlegm, and stimulate the lungs. I cannot enter minutely into all improper foods; but any person may see my idea plain enough, and refrain from things that are of a doubtful nature.

Many persons refrain from taking milk, because they suppose that it turns to phlegm; this is a vulgar error. Milk is an excellent nutriment where it will agree. It is lighter, and better skimmed, than when just taken from the cow: for when there is acid in the stomach, the thick parts of the milk is apt to curdle, and cause uneasiness. A little lime water, or prepared oyster shell powder, will correct the acedcent qualities of the milk where it is used to gripe; if put into the milk when it is taken. Asses, goats, and mares milk, are excellent in complaints of the lungs, where
milk

milk is necessary; being cooling, light, and nutritious; they should be taken in larger quantities than is commonly ordered.

Tea to many constitutions is very injurious, especially to such as are nervous. Where it agrees, or is particularly grateful and desired, it should not be drank too hot, and should consist of one half or a third of milk.

To coffee, there are also objections in some constitutions; but in nervous Asthma, coffee made very strong will relieve a fit. It was usual for Dr. James, to order four ounces of coffee to be boiled in a pint, or a pint and a half of water, and a cup of it to be drank every half hour, or oftener, till the spasm abated.

Milk chocolate, or milk coffee, which is not made too strong of the tea, or too thick with chocolate, may be taken in common, as breakfast or supper; milk porridge, leek porridge, &c. are very proper. Dry toasted bread, with honey, or some preserve, or marmalade of fruit, &c. may be eaten with the tea, chocolate, &c. where tea, or any of the above things do not agree, some of the aromatic herbs may
be

be used as such, viz. the outer rind of orange peel cut fine, or the leaves of the orange used as tea, are very grateful and wholesome as are the flowers of rosemary, lavender, and the leaves of mint, balm, and sage, &c.

What I am now going to advise, I do not expect will be followed by many of my countrymen. The custom of drinking such quantities of beer, wines, and spirituous liquors they are so habituated to, that it will be hard for them to conquer their desires; but it is the act of a wise man, “of two evils to chuse the least;” pain is an evil, and drink produceth pain: therefore a wise man would refrain from drinking. Persons troubled with Asthma, should drink toast and water, or rennet whey. They are the most wholesome diluents in nature. Many serious complaints are produced by the poisonous qualities in fermented liquors, which are erroneously attributed to other things. Those who cannot refrain from the habit of drinking them, should take care that their liquors be sufficiently aged; as time which destroys most other things, improves liquors, and renders them less pernicious.

Nothing

Nothing will be more conducive to health, or to prevent the fits of the Asthma, than proper cloathing; particularly such as keep the feet warm and dry. It is not uncommon for persons who are fond of gardens, to stand still on the wet cold ground, and afterwards to let their wet shoes and stockings dry on their feet; and perhaps their cloaths, if they happen to be only a little wet; this sort of negligence has destroyed its thousands.

Those who are subject to Asthma, gout, &c. &c. should wear warm stockings, and cork shoes, as a means of prevention. A flannel waistcoat worn next to the skin in winter is also proper.

That ornament to his country, the Honourable Mr. Robert Boyle, preserved his life many years, by regulating the thickness of his cloaths, by the degree of cold pointed out by thermometer. Every person cannot, and perhaps ought not to do this; but the weak and tender valetudinarian would find his account in it, and many are untimely snatched away from a neglect of such necessary and practicable cautions.

L

High

High and elevated situations are found best to agree with asthmatic persons; especially such places as are not near to marshes, or stagnant waters, or frequented by much rain or fog. A fine thin pure air expands the lungs, while thick moist air oppresses them, and adds to the heap.

But there are some persons that bear the air of towns, better than that which is more pure, these however are not many.

Those situations are best, which face the South, and South-west, and are defended from the North, and North-east winds. Some particular warm defended places on the sea coast; and in some of the interior counties, agree with Asthma very well.

The west side of Hampstead, is also very salutary for asthmatic persons; indeed asthmatic patients do very well any where in this neighbourhood, except on the very summit of the hill in very cold weather. Many other places may be as good, but my experience does not enable me to point them out.

With

With respect to exercise, where the Asthma is unaccompanied by fever or inflammation, the more a patient is able to take so much the better; particularly if it be on horseback.

Exercise promotes a regular, and equal circulation of blood, takes the foul matter out of the glands; and stimulates the smaller vessels, and animal fibres, to do their proper offices of action and secretion. Chronic complaints in general require this.

Where horse exercise cannot be borne, the dumb bell, a chamber horse, or a daily use of the flesh brush is really necessary. Sedentary persons should attend to this, as many of their complaints arise from inaction.]

It is to be lamented that very studious men, and many of the greatest scholars, and best writers, are very negligent in this respect, They would be able to do themselves, and the world more service, did they pay more attention to it. They would prolong their lives, have better health, and consequently more enjoyment.

joyment. And I shall consider it as one of the happiest circumstances of my life, should this paper fall into the way of one thus situated, and become the means of serving either him, his relations, or the publick.

F I N I S

E R R A T A.

Page 28, line 19, from the top read causing.

Page 54, line 1, read prescribed.

Page 56, line 4, read radish; line 2, from bottom dele; to.

Page 61, line 1, from the top, read power.

Page 63, line 3, from the top, for *then* insert *than*.

Page 66, line 14 delle those, after with.

Page 99, line 1 in the note, read find.

Page 109, line 9, read eligible.

Page 112, in the note, line 4, read irritating.

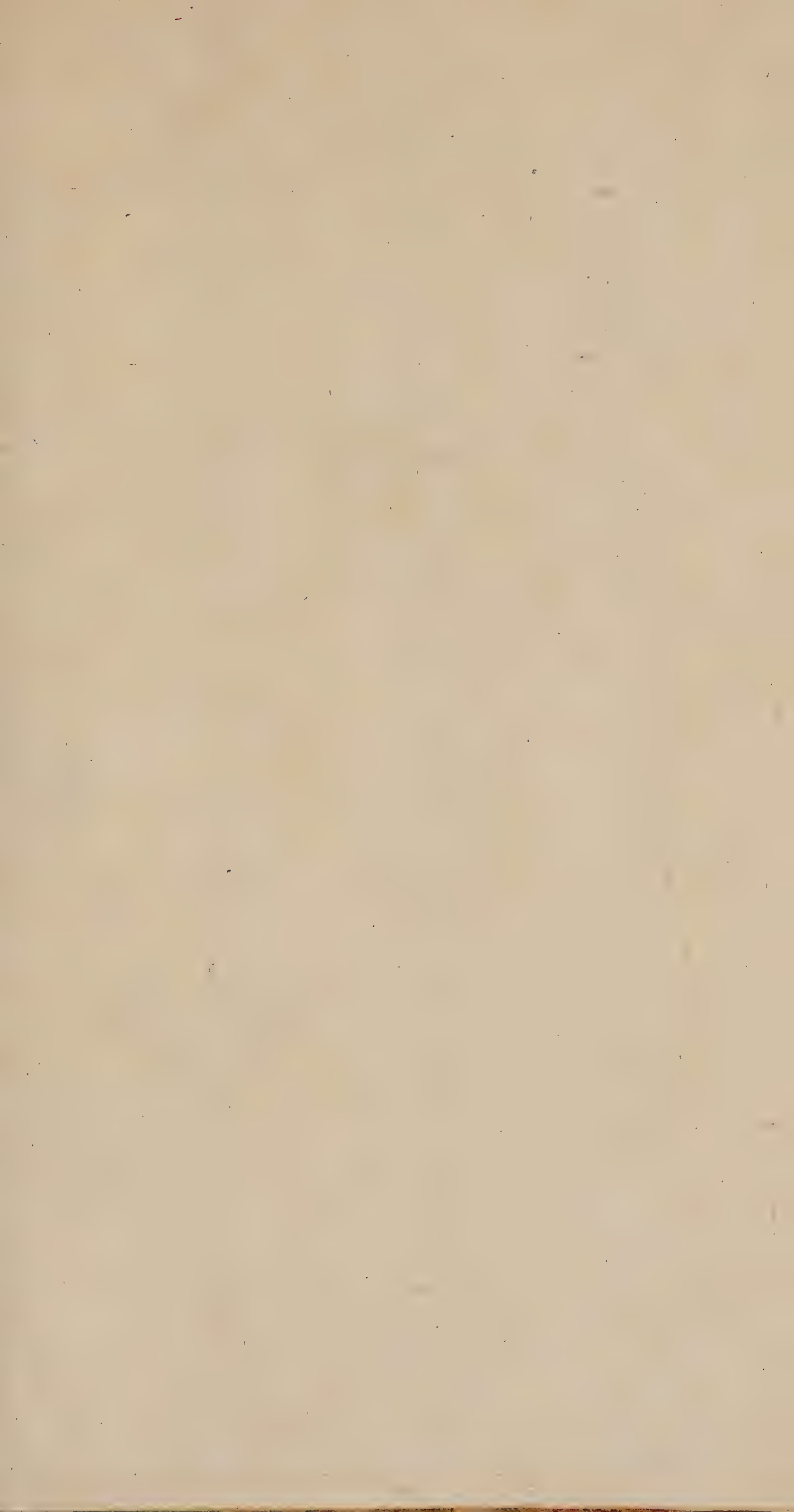
Ibid. line 9, read situation.

Page 115, line 7, after *careful*, add *to*.

Page 113, line 2, read temperature.

The paging 130, erase 140; 131, erase 141.





Q. Q. 2. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839.

